No.1 for dental professionals in Scotland

October/November 2012

Scottish Dental magazine

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Welcome

Editor's desk

with Bruce Oxley

Show sequel

Following the success of the first-ever Scottish Dental Show at Hampden Park in May, we are already well down the road in our preparations for the 2013 event on 16 and 17 May.

We've listened to feedback from the profession and the dental trade and we're confident that next year will be even better than before.

At the time of writing, there were fewer than 10 stands left to be sold, a ringing endorsement from the dental trade that this is already a much-needed and valued show.

One of the main areas of concern for delegates was that the free speaker programme lacked sufficient focus and there wasn't enough of interest for DCPs. In an effort to tackle this, we have recruited Stephen Jacobs, principal dentist at Dental fx in Bearsden and former president of the ADI, to chair our new scientific committee.

Stephen, along with a couple of colleagues, will be fine-tuning the speaker programme and we hope to be able to announce all the details in the very near future. Speakers who have been confirmed include Paul Tipton and Ashley Latter, both of whom played to big crowds in May.

There will be dedicated sessions for dental nurses, technicians and other DCPs, as well as core CPD topics, including oral cancer, which has been recently added to the list of core subjects. All sessions will qualify for verifiable CPD and we will again be applying for CPDA funding approval from NHS Education for Scotland.

We will be launching a brand new dedicated Scottish Dental Show website at the end of October and, as the weeks go by, we will be adding more information, content and making regular announcements about the 2013 event.

The registration process is being overhauled and the entry and exit to all speaker sessions will be smoother and quicker.

Given the popularity and excitement generated by the Scottish Dental Lifetime Achievement Award at this year's show, we are also delighted to announce that we will be expanding this to include 11 other gongs in the first-ever Scottish Dental Awards.

The glittering event will be held at Hampden on Thursday 16 May and will be a spectacular way to celebrate the very best in the Scottish dental world.

Details of how to enter will be released soon. In the meantime, turn to pages six and seven for the latest news on the show and the inaugural Awards. ■

Bruce Oxley is the editor of Scottish Dental magazine. To contact Bruce, email bruce@connectcommunications.co.uk

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Dr C A Bain BDS, DDS, MSc, MBA, 43220
Specialist in Periodontics, Prosthodontics and Restorative Dentistry

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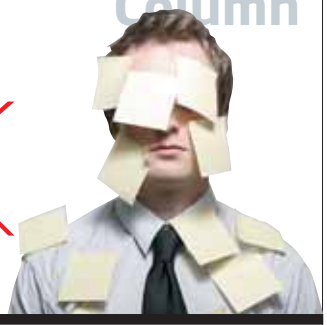


An inspector calls...

We all know how much hassle is involved in preparing for the three-yearly practice inspection by the health board. It is a stressful and time-consuming process: the inspection itself can take three or four hours and the preparation can take many, many hours over the preceding weeks.

A regular inspection of dental practices is, of course, necessary to reassure patients and the authorities that good standards are being maintained, and friendly advice from a reasonable, helpful inspector can be a bonus to busy, hard-pressed dentists.

However, as we have all discovered, much of the inspection requirement is a pointless paperwork exercise demanding protocols, policies and written procedures which then get shelved and forgotten for another three years because they contribute nothing to good dentistry or patient care.

It might interest you to know that from January 2013, a new inspection checklist will be introduced and dentists would be delighted if this list were shorter and more relevant than the current checklist. Unfortunately, and true to form, the new checklist will be longer and even more challenging than before.

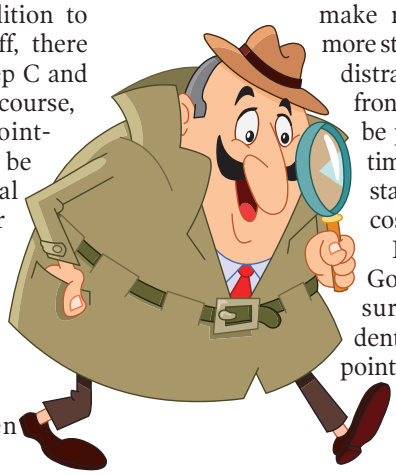
At the time of writing, the details of the new inspection have yet to be formally announced, but Arthur has heard that the time taken for the new inspection could exceed FIVE HOURS and so could potentially last a full working day.

It will have all the items on the current health board checklist, but will now also include the much more demanding requirements for a vocational training practice inspection, and then add some extras just to make things interesting.

What new items can we expect on the checklist? In addition to Hep B status for all staff, there are questions on their Hep C and HIV status. There is, of course, a further increase in pointless paperwork: we will be expected to have formal written protocols for such matters as medical emergencies, induction of new staff and business continuity in the event of unforeseen circumstances.

We will need written policies on obtaining patient consent, formal protocols of making patient referrals outwith the practice and protocols for patient notification and for storage and retrieval of patient records if the practice closes permanently. All useful for gathering dust on a shelf.

"Arthur has heard that the time taken for the new inspection could exceed FIVE HOURS"



Radiation protection requirements will be much more detailed and stringent, including recording the radiation dose assessment for patients. The inspector will also have to observe the decontamination process in action in the surgeries and LDU.

In addition to 'inspection fever', all of these new requirements will make running a practice much more stressful and time consuming, distracting dentists away from frontline patient care. It will also be potentially more costly at a time when NHS fees have been static, while practice running costs continue to increase.

It is time the Scottish Government eased the pressure on hard-pressed NHS dentists and lifted some of the pointless rules and regulations, instead of binding dental practices in red tape. ■

DETAILS AND CONTRIBUTORS

Editor
Bruce Oxley
Tel: 0141 560 3050
bruce@connect communications.co.uk

Senior sub-editor
Wendy Fenemore

Sub-editors:
Chris Fitzgerald
Gary Atkinson

Design and production
Scott Richmond
Fiona Wilson

Advertising sales manager
Ann Craib
Tel: 0141 560 3021
ann@connect communications.co.uk

Subscriptions
Ann Craib
Tel: 0141 560 3021
ann@connect communications.co.uk

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Studio 2001, Mile End,
Paisley PA1 1JS
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Fax: 0141 561 0400
www.scottishdentalmag.co.uk

Event. Make a note in your diary – 16 & 17 May at Hampden Park

Full house expected at 2013 Dental Show

The Scottish Dental Show 2013 will return to the home of Scottish football on 16 and 17 May with another bustling trade show and exciting speaker programme.

Following the success of the inaugural event, many of the exhibitors have already reserved their space and with more than seven months still to go, the exhibition halls are nearly full. There are still stands available, but space is limited, so please get in touch if you want to book a stand.

The free speaker programme at the 2012 event, which offered delegates up to 12 hours' verifiable CPD, proved to be incredibly popular, with nearly 2,000 CPD certificates sent out after the show. In response to the extensive feedback we collated, we have enlisted the help of Dental fx's Stephen Jacobs, former president of the Association of Dental Implantology, to chair our new scientific committee.

Stephen will work with a group of colleagues to tailor the programme to best suit the needs of dentists and DCPs in Scotland. We have already secured a keynote speaker in Paul Tipton and are delighted to welcome back crowd favourite Ashley Latter.

On top of these plenary sessions, we will have parallel sessions covering a range of topics, core CPD subjects such as oral cancer, decontamination, radiography and medical emergencies, as well as sessions specifically for technicians and the rest of the dental team. A full list of the speaker programme will be released in due course.

Registration for the show will remain FREE, as will attendance at all the lectures, seminars and workshops.

Above: attendees at last year's show. Speakers at next year's event will include Ashley Latter, left, and Paul Tipton, right

Right: Stephen Jacobs will chair our new scientific committee

Check out the new website (ScottishDentalShow.co.uk) when it launches at the end of October. Follow us on Twitter (@ScottishDental) and 'like' our Facebook page (Facebook.com/ScottishDental) for breaking news on the show.

Recognition for inaugural event

The Scottish Dental Show 2012 has been nominated for a PPA Scottish Magazine Award 2012 in the Brand Extension category.

The event, held at Hampden Park on 24 and 25 May, saw in excess of 1,200 delegates visit more than 100 stands and attend more than 40 vCPD speaker sessions at the home of Scottish football.

Speakers such as Ashley Latter, Paul Tipton, Bob McLelland, Stephen Jacobs, Phil Friel, Elaine Halley, Professor Brian Millar, Arshad Ali, John Meechan and Abid Faqir pulled in the crowds, despite the unseasonably hot weather.

The show also saw the presentation of the inaugural Scottish Dental Lifetime Achievement Award to Professor William Saunders, former dean of Dundee Dental School.

The inaugural 2012 show was a huge success

Chick Young, Professor Saunders and *Scottish Dental magazine* editor Bruce Oxley

Honouring the best in the profession

Awards. Additional categories planned for next year's show

The great and the good of Scottish dentistry will take centre stage on Thursday 16 May with the first-ever Scottish Dental Awards ceremony.

The 2012 Scottish Dental Lifetime Achievement Award, which was held at a special drinks reception at the end of the first day of the Scottish Dental Show in May, was won by former Dundee Dental School dean Professor William Saunders.

In response to the success of the 2012 event, the organisers of the 2013 show have decided to expand the occasion to include a black tie dinner and extended awards ceremony.


Attendees listen to one of the speakers at last year's show

The 2012 drinks reception was hosted by BBC Scotland's football correspondent Chick Young and he had guests from north and south of the border holding their sides with laughter. The identity of the host for next year's awards ceremony will be announced soon and the organisers are confident it will be an evening to remember.

Alongside the Lifetime Achievement Award, which will remain the headline prize, there will be 11 categories for dentists and their teams to enter. Online nominations will be open from the end of October on the newly relaunched Scottish Dental Show website (ScottishDentalShow.co.uk).

A shortlist will be compiled and the winners, to be chosen by a panel of judges from across the profession, will be announced at the ceremony on 16 May. The judging panel is being assembled and will be announced in due course.

All the award criteria, plus information on how to enter, will be made available when the show website relaunches.

Tables of ten and individual tickets are already available for dental teams and the dental trade, along with sponsorship packages, contact Ann Craib in 0141 560 3021 for more details.

SCOTTISH DENTAL AWARDS 2013 - CATEGORIES:

- Scottish Dental Lifetime Achievement Award 2013
- Dentist of the Year
- Best NHS Practice
- Best Private Practice
- Best Referral/ Specialist Practice
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Quartet to receive BDA honours

Awards. Recognition for Scottish dentists at Association's annual celebration dinner

Four Scottish dentists are to be honoured by the British Dental Association (BDA) for their contributions to the profession at their annual Honours and Awards Dinner in November.

Dr Mike Arthur, Dr Jackie Morrison, Professor Philip Sutcliffe and Dr John Herrick will be among 14 recipients of awards at the special presentation ceremony in London.

Dr Arthur, a GDP from Lanarkshire and former chair of the BDA's Scottish Council, has been awarded a BDA Fellowship in recognition of his outstanding and distinguished service to the association and the profession. He was chair of Scottish Council from 2003 to 2009 during a period of significant change and has been involved with his local dental committee since 1975.

As revealed in the August/September issue of *Scottish Dental magazine*, Dr Jackie Morrison is to be conferred with the BDA Life Membership, in recognition of his service at branch, group and national levels. Nicknamed 'Mr BDA Scotland' by Community Dental Service Group members, he has worked in the community service since 1990.

The third Scot to be recognised at the ceremony is Prof Philip Sutcliffe, who is to be added to the association's Roll of Distinction for outstanding services to UK dentistry. During a career that spanned 40 years, Prof Sutcliffe spent 20 years as dean of dentistry at Edinburgh and has also served as postgraduate dean, president of the BDA East of Scotland Branch, a member of the GDC and vice-chair of the BDA Benevolent Fund.

The final Scottish dentist on the list of honours is Dr John Herrick, who will be presented a Certificate of Merit for Services to the Association. A member of the Scottish Salaried Dentists Committee for 11 years, he has served as both chair and vice-chair during negotiations for a new salaried contract, as well as being secretary of the Scottish Association of Clinical Dental Directors.

"The BDA is delighted to recognise the contribution each of them has made"

Dr Mike Arthur

Praising the achievements of his colleagues, BDA's national director for Scotland, Andrew Lamb, said: "These individuals have demonstrated commitment and dedication, both in what they have done for the association and the profession as a whole. The BDA is delighted to recognise the contribution each of them has made."

New tooth whitening laws come into effect across UK

REGULATIONS

Changes in the law relating to tooth whitening, in surgery and at home, come into effect on 31 October.

This is a result of an EU directive which required the UK Government to amend the law on tooth whitening.

The new law increases the percentage of hydrogen peroxide allowed to 6 per cent, subject to conditions which include first use by a dental practitioner or under direct supervision. It could be construed as a breach, however, if a dentist or practice sold tooth whitening products containing or releasing more than 0.1 per cent hydrogen peroxide to someone other than a patient undergoing tooth whitening treatment.

A statement from Dental Protection Ltd said: "The new law draws a clear line between the products that can legally be used for tooth whitening by dentists or under their direct supervision and the products that can be purchased by non-dental professionals."

Turn to page 71 for an in-depth analysis.

Ivor Tullis 1924-2012

OBITUARY

John Ivor Tullis, former GDP and Chief Administrative Officer (CADO) for the Highland health board, has died peacefully aged 87.

Dundee-born Ivor, as he was known, graduated from St Andrews University in 1946 and subsequently joined the Royal Army Dental Corps, having served as a 2nd lieutenant in the Territorial Army during his studies. He met his wife Margaret while stationed in Singapore, and they were married in Singapore in 1948.

After rising to the rank of major, Ivor left the army in 1952 and worked in general practice in Dundee until 1969, when he joined the restorative dentistry department at the University of Edinburgh. In 1974, he was appointed CADO in Inverness where he spent the last 15 years of his career. He retired at 65 in 1989.

Colwyn Jones, who also previously worked in Inverness, said: "Ivor was a forthright character, perhaps shaped by the austerity, adversity, trauma and uncertainty of the Second World War and the unshaded discipline of his military training. Typically, he always held an opinion, and beneficially for his staff, there was never any doubt about his view."

Ivor is survived by his wife Margaret, daughter Lesley, sons Donald and David and his six grandchildren.

To read the full obituary online, please visit bit.ly/IvorTullis

Support for mouth cancer e-petition

CAMPAIGN

More than 1,000 people have signed an e-petition calling for mouth cancer sufferers to be exempt from dental charges.

At the moment, mouth cancer patients have no guarantee to receive restorative treatment on the NHS.

Chief executive of the British Dental Health Foundation, Dr Nigel Carter OBE, said: "It is the Foundation's belief that the current situation faced by mouth cancer sufferers is highly unfair and completely unacceptable.

"To compound those issues with financial concerns, particularly in such difficult economic times, is one step too far for many mouth cancer sufferers. While all cancer patients require a great deal of care, those on the road to recovery from mouth cancer clearly suffer the after-effects of surgery, both physically and mentally.

"We fully urge as many people as possible to sign the e-petition to ensure this issue is debated and changed."

To view and sign the e-petition, visit epetitions.direct.gov.uk/petitions/22063

Clyde to give mouth cancer the boot

Sponsorship. 'Bully Wee' to wear BDHF Blue Ribbon on kit

Scottish Third Division football club Clyde FC will be sponsoring Mouth Cancer Action for a second season, the British Dental Health Foundation (BDHF) has announced.

The 'Bully Wee' will be sporting the BDHF's Blue Ribbon Badge logo on their away strip to promote Mouth Cancer Action Month (MCAM) in November and raise awareness of a disease that kills more people than cervical and testicular cancer combined.

The link between the foundation and the club came about through Clyde FC director David MacPherson, who is also a dentist at Whitemoss Dental Practice in East Kilbride.

MCAM, supported by Denplan, aims to educate people about the risk factors that can cause mouth cancer. Incidence rates are consistently higher in Scotland than in any other part of the UK, and chief executive of the BDHF, Dr Nigel Carter OBE, welcomed the support from Clyde Football Club.

Dr Carter said: "Mouth cancer is a well-documented problem in Scotland. Lifestyle choices are a significant feature of the disease, and it is clear more must be done to educate people on the risk factors.

"That is why the foundation is pleased that Clyde FC have once again chosen to promote Mouth Cancer Action Month on their kit. This will hopefully prompt people to think about the disease and consider whether their lifestyle puts them at risk."

To find out more about the campaign, call 01788 539 792 or email pr@dentalhealth.org

Fraserburgh dental centre plans lodged

DEVELOPMENT

Plans for the long-awaited £2 million dental centre in Fraserburgh have finally been submitted to Aberdeenshire Council.

The new centre is expected to treat about 5,000 patients and be open as early as June next year.

The 22,240sq ft centre will be built in the grounds of Fraserburgh Hospital in Lochpots Road and will mark the end of a travel nightmare for many residents of 'The Broch', who have been forced to travel 40 miles to Aberdeen for treatment.

A spokesman for NHS Grampian said: "The centre will be able to treat around 5,000 patients and will also have a new sedation facility for anxious patients, which will mean they avoid long journeys."

The Fraserburgh centre was initially announced four years ago but has suffered from a series of delays due to lack of funds. However, it was revived last year as part of a £67m spending programme announced by the north-east health board.

It is expected that five dentists will be based at the centre, with two directly employed by the health service to work exclusively on NHS patients. The other three dentists will move from David Shaw Associates in Frithside Street. They will treat both NHS and private patients.

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Edinburgh orthodontist picks up double award

Competition. East Lothian clinician receives national recognition

Edinburgh orthodontist Dr Mustafa Adbel Ellah Mustafa was celebrating a unique double at a recent awards ceremony as two of his patients were held up for acclaim.

Dr Mustafa, who works at Sayegh and Partners Orthodontics in Musselburgh, saw his patient Linsay Graham named the winner of the British Orthodontic Society's Against the Odds competition 2012.

The West Lothian teenager was a naturally shy character whose unease about her crooked teeth was only exacerbated by the tragic loss of her brother at only 15 years old. This led to her suffering from extreme anxiety, to the extent that she attended a special unit designed to help young people.

Her decision to embark on orthodontic treatment meant overcoming this anxiety and, as Linsay herself puts it, the treatment was much more than an aesthetic issue. She said: "Getting braces changed more than just my appearance. My whole outlook on life changed." Since her treatment she has enrolled at university to study psychology, which for someone who was once too fearful to even leave the house is an achievement in itself. First prize in the competition, which judges the effect of malocclusion on a person's self-esteem, saw Linsay pick up a £750 travel grant from Ormco.

Dr Mustafa was also celebrating a runners-up spot for another patient, Rachel Harvey, who lost four teeth in an accident when she was six years old. This affected her confidence and things were not helped by a serious car crash a few years later which left her with memory loss and, in her own words "made me feel stupid as well as ugly".

Linsay Graham before and after her treatment

Following orthodontic treatment at the Musselburgh practice, Rachel said: "Now I feel I can grin all day long and it would not bother me in the slightest! People have told me they like my teeth now and I think it is just wonderful how much my life has changed by simply having a brace fitted."

For more information on the BOS, visit www.BOS.org.uk

An event you would be 'crazy to miss'

BDA SCOTTISH CONFERENCE

Nearly 250 delegates were in attendance at the BDA Scotland's Annual Scientific Meeting in Dunblane recently.

Dr Christopher Lynch, senior lecturer and consultant in restorative dentistry at Cardiff University, was the keynote speaker who tackled the question: 'Contemporary management of restored teeth – what next?'

Dr Lynch, a University College Cork graduate, gave an overview of contemporary issues in managing the restored dentition in the first session, before outlining the advances in dental materials in the second session. After lunch, he presented first on the endodontic and periodontal challenges before looking at what to do when things go wrong and failures in the restored dentition.

In his opening remarks, BDA president Dr Frank Holloway described the annual scientific event as "one of the events you would be crazy to miss", adding that he conference had a "great reputation".

The event also included a parallel programme for dental nurses for the first time. BADN president Nicola Docherty gave the opening address and introduced talks on indemnity, product management and the ageing dentition.

BACD welcomes new president

APPOINTMENT

The new president of the British Association of Cosmetic Dentistry (BACD) has vowed to refocus the association's energies and change the perception of cosmetic dentistry in Britain.

St Albans practitioner Julian Caplan is one of only nine dentists worldwide who has achieved 'Accreditation' status with the BACD.

The Sheffield graduate, who takes over as president in the association's 10th year, said: "At the heart of the BACD ethos is an agenda to change perceptions as to what cosmetic dentistry really means.

"I think an important part of our mission is to change the perception of cosmetic dentistry in Britain.

"My hope for the forthcoming year is that we can refocus our energies on what really matters – providing high quality dentistry for our patients."

Dundee Dental School's Egyptian expansion

MSc PROGRAMME

The University of Dundee Dental School has announced plans to deliver an orthodontics masters degree programme in Egypt, beginning early in 2013.

The MSc in orthodontics will be a part-time programme for dentists wishing to specialise in this discipline. Working closely with the Arab Society for Continuous Dental Education (ASCDE), lecturers from Dundee will travel to Cairo on a regular basis to teach the planned three year programme.

The University and the ASCDE have recently signed a Memorandum of Understanding underpinning the collaboration. ASCDE will promote the course to dentists throughout Egypt and the neighbouring Arab region.

David Bearn

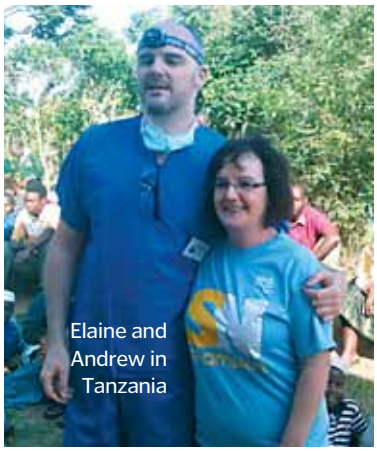
Parallel with the University's taught programme, participating dentists will also undertake orthodontics skill training at ASCDE's clinical facilities where patients receive free treatment under the supervision of its own teaching staff.

The programme will be led by David Bearn, professor of orthodontics and head of learning and teaching for the College of Medicine, Dentistry and Nursing.

"It is understood that this is Egypt's first collaboration with a foreign university to deliver a masters degree in orthodontics – which is a resounding endorsement of the teaching excellence at the University of Dundee," said Professor Bearn.

Glasgow therapist's Bridge2Aid adventure

Charity. African experience for Drumchapel Health Centre worker



Elaine and Andrew in Tanzania

A dental therapist from Glasgow has just returned from a two-week stint in Tanzania working for the charity Bridge2Aid.

Elaine Warner from Drumchapel Health Centre was part of a team of 16 dental professionals, including Glasgow Dental Hospital SHO Andrew Hunter, who travelled to the east African country to provide much-needed dental care.

The team visited the Bokoba region where there is only one dentist for every 800,000 people. They taught clinical officers how to carry out emergency treatment and provided dental treatment for hundreds of local people.

Elaine said: "This was the best experience I have ever had in my life. I have never worked with such a wonderful team of people or worked so hard.

"We were out to help teach clinical officers who work in remote areas where they carry out medical treatment such as vaccines, delivering babies and repairing broken bones, but they have no dental experience.

"We worked in their remote clinics where there is no water or electricity and the equipment is very basic. There was a kitchen chair, forceps, elevators and the sterilisation is carried out in pressure cookers.

"We travelled two hours there and back every day over dirt track roads to be met by a group of around 80 people suffering toothache and who had travelled miles to be seen. They would wait patiently for hours to be seen and the only treatment available is extraction.

"The work the charity is undertaking is marvellous and, as well as training five clinical officers, we managed to offer dental treatment to more than 500 people. The five clinical officers will now return to their areas and be able to help their patients."

For more information on Bridge2Aid, visit their website at http://www.bridge2aid.org

Cancer donation is good therapy

MAKING A DIFFERENCE

A Stonehaven dentist has donated a therapy bed to his local CLAN Cancer Support office to help bring a smile to cancer patients.

Kenny Jones, principal of the Arduthie Dental Practice, made the generous move after visiting the CLAN office on Robert Street and noticing that the therapy bed was looking a bit worse for wear. The new luxury bed will be used by patients undertaking therapies such as reflexology, massage and reiki. It has an electric pedal to adjust the height and make it easier for patients to get on and off the bed.

Kenny explained that he has seen the struggles cancer patients face at first hand after losing his mother to the disease and he is pleased that his donation is already making a difference to patients.

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Opening. Four-surgery Lanarkshire practice receives substantial grant from NHS board

Minister cuts the ribbon at new Burnbank practice

Public Health Minister Michael Matheson MSP and Scotland's Chief Dental Officer Margie Taylor have officially opened a four-surgery practice in Lanarkshire.

The minister cut the ribbon at the McKirdy and Morrison Dental Practice in Burnbank, which is situated on the site of a former bingo hall. The practice's owners, Graham McKirdy and Bryce Morrison, have been providing dental care in Burnbank since 1982.

The brand new facility – which has four surgeries – was built thanks to a substantial grant from NHS Lanarkshire's Primary and Community Care Modernisation Fund and funding from the Scottish Government's Primary and Community Care Premises Modernisation Programme.

The Minister flanked by Bryce Morrison (left) and Graham McKirdy (right)

Bryce Morrison said: "All the staff are delighted to have moved into our new base and all our patients have told us how they're really enjoying using the new facility.

"Everyone who has been in has been very complimentary about it, saying how modern and fresh it looks, as well as commenting on the new features.

"As well as the four surgeries, we also have a dedicated decontamination room.

"As a family practice, we also have three Childsmile nurses and a dedicated Childsmile room where mothers with young children can be given preventative oral hygiene advice in a non-clinical, relaxed environment."

Michael Matheson said: "This fantastic new facility is yet another example of the investment that has been made all over Scotland in our NHS premises to create a health service fit for the 21st century.

"I know that patients and staff alike will welcome the fact that dental treatment can now take place in these modern facilities.

"The development was made possible through the Scottish Government's Primary and Community Care Premises Modernisation Programme which has distributed £75 million, via NHS Boards, to primary care premises across Scotland."

GDC freezes ARF

FEES ANNOUNCEMENT

The General Dental Council (GDC) has announced a fee freeze for the coming year at a meeting to agree the council's budget for 2013.

This means that the Annual Retention Fee (ARF) for dentists, due on 31 December 2012, will remain at £576, with the ARF for DCPs, due by 31 July 2013, remaining at £120.

The decision was made at the September GDC council meeting, where the 2013 budget for the regulator was agreed. The budget includes plans for further investment to "improve and enhance the GDC's performance".

These plans include further reforms to the Fitness to Practise procedures; a move to introduce online registration; progression of policy projects such as Direct Access, Scope of Practice, Revalidation and a review of CPD; plus the redevelopment of the council's HQ in London.

The council revealed that it is on course to make efficiency savings of £2.8 million, resulting in cumulative savings over two years of some £3.6m.

The redevelopment of 37 Wimpole Street takes advantage of the 'peppercorn' rent agreement that does not expire until 2057. It means the GDC would no longer need to rent extra premises.

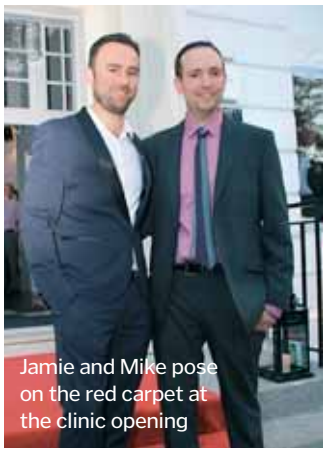
Opening for relocated Glasgow clinic

PRACTICE MOVE

Glasgow cosmetic dental centre the Berkeley Clinic held a star-studded opening evening for their relocated practice recently.

Paolo Nutini was among the guests at the West End clinic, which has moved from their former premises on Berkeley Street to nearby Newton Terrace.

Patients, colleagues, friends and family were all welcomed to the event by clinical director Jamie Newlands and business partner Mike Gow. Jamie explained that the project has been a real labour of love. He said: "All our patients know how hard the project has been and how hard we have worked. We had planning issues with it being a listed building and various other challenges along the way but, when we finally got there, we thought we'd have an event to show it off to our patients.



Jamie and Mike pose on the red carpet at the clinic opening

"We've been working 120-hour weeks for the past three years, so it has been a bit crazy."

Fundraiser. Scottish Association for Cleft Lip and Palate holds popular annual event

Symposium and charity ball

The Scottish Association for Cleft Lip and Palate (SCALP) held a scientific symposium at the end of September, to coincide with their annual charity ball.

The symposium, entitled 'Evidence-based craniofacial care', saw more than 60 delegates attend the Thistle Hotel in Glasgow on 22 September to see speakers of the calibre of Professor Ian Jackson, David Dunaway, Professor Jonathan Sandy, Professor Gosla Reddy and Professor Nichola Rumsey.

The SCALP Ball was held on the evening of the symposium and was attended by more than 110 guests. The master of ceremonies was former professional footballer and after-dinner speaker Des McKeown who also hosted the successful charity auction.

Guests at the SCALP ball tuck into their sweets

Guests were entertained during the reception by musicians from Douglas Academy, a surprise appearance by pipe band Gutty Slippers and the main event Groove Station.

So far, the event has raised more than £5,000, and the organisers would like to thank everyone who came along and made the night a great success.

For more information on SCALP, contact trudie.imrie@btconnect.com or visit www.scalp4kids.org

New ortho specialist

RECRUITMENT

A multi-disciplinary referral clinic in Edinburgh has recruited an orthodontist to its team of specialists.

Dr Robert Hill has joined Vermilion where he will work on a part-time basis and alongside his new colleagues on a multi-disciplinary basis.

Graduating from Edinburgh in 1989, Dr Hill spent two years at the Edinburgh Dental Institute before spells in Monklands Hospital in Lanarkshire and York, working as a senior house officer.

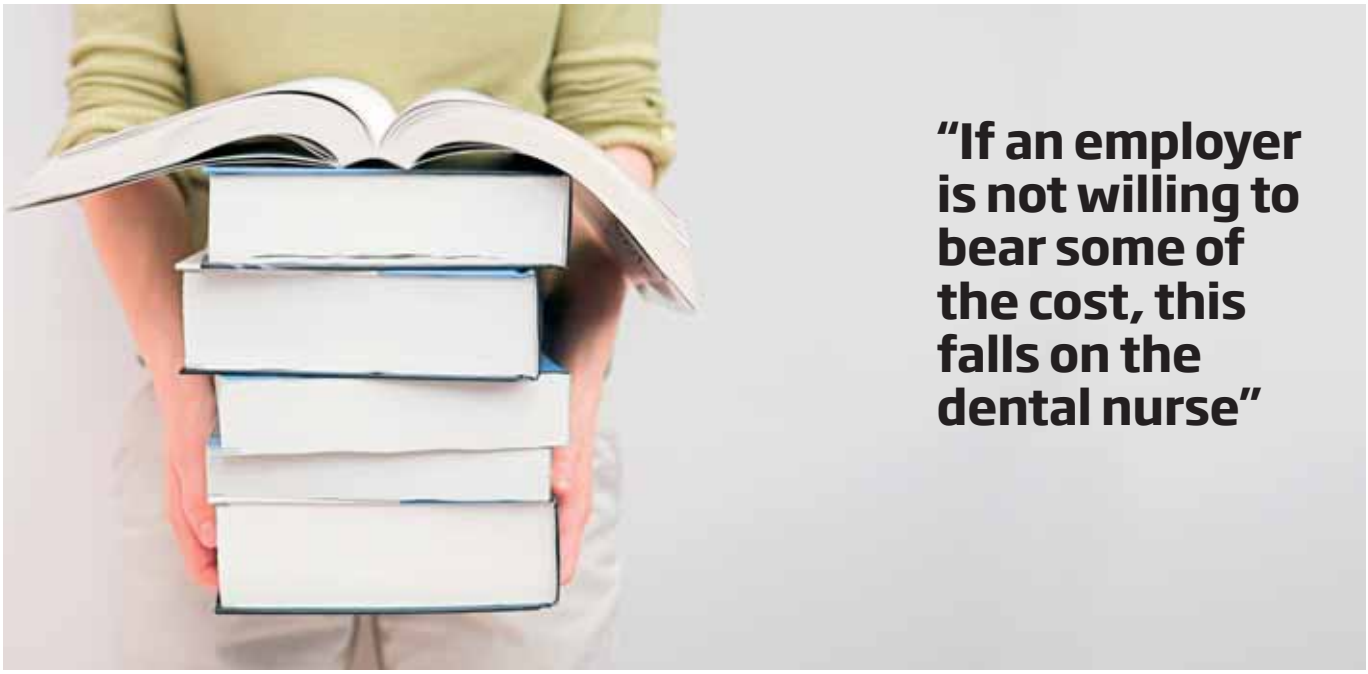
He returned to Edinburgh to begin his three-year orthodontic training programme, followed by four years of specialist training, which led to consultant level. Dr Hill became a registered specialist in orthodontics in 1999.

For the past 11 years, he has worked in specialist orthodontic practices in Falkirk and Stirling, providing the full range of orthodontic treatments to children and adults in the Forth Valley area.

Dr Hill is a member of the American Association of Orthodontists, the British Dental Association, the British Orthodontic Society, the Scottish Orthodontic Specialist Group, the World Federation of Orthodontics, the Edinburgh Dental Alumni Society and the Royal Odonto-Chirurical Society of Scotland.

From the chairside

with Alison McKenzie



"If an employer is not willing to bear some of the cost, this falls on the dental nurse"

Back to the blackboard

After a year's break from the textbooks, I decided it was time to get back into studying. Dental nursing can be a rewarding career, but, as in any job, there is the need for stimulation of the brain cells not only to keep up to date on legislation changes, but also to avoid stagnation.

Since starting dental nursing in 2005, I have tried to study at least once a year. After passing the NEBDN National Certificate, I began a further education course in the hope of working towards the Oral Health Science BSc. However, on reflection, I decided I could not afford to give up working full time to accommodate the required three-year study programme.

Moving into orthodontics, I completed an infection control course (cleanliness champions), and followed this with the NEBDN radiology certificate. I discovered, however, that dentists like to take their own X-rays and I did not anticipate that if I wished to continue to use this new skill in future employment, my application choices would be limited.

I considered this when deciding on my latest course, as this would be one of the factors to affect my decision on whether to train for another dental nursing qualification or opt for an alternative course.

Dental nurses have access to a greater range of courses than ever before, but they can be expensive and hard work. It was important to determine whether this route would be not only beneficial in my present employment, but also for any decisions I may make in future career plans. I found that two important points came into account when deciding on dental nurse qualifications.

Employer's support – some courses require employer support for enrolment. This has been a major drawback for some dental nurses I have talked to, as without it, course choice is limited and there is also the added frustration at not getting to put a new skill into practice on completion of a training programme.

Finance – courses can be expensive and usually require full payment; if an employer is not willing to bear some of the cost, this falls on the dental nurse. There is also no incentive if there is no increase in wage at the end.

Since the introduction of Continuing Professional Development, there is a variety of short courses for those who want to update existing knowledge. There are also the more traditional courses for those wanting more of a challenge. Either way, the opportunities are there for any dental nurse who wants to further their career.

I eventually decided to enrol on a degree course and, in this case, the 173 SCQF points from the NEBDN qualifications that I had worked so hard for turned out to be an unexpected bonus. ■

Leader of the pack

Highland dentist Robert Donald has recently returned to chair the Scottish Dental Practice Committee, he tells Bruce Oxley how he went from rugby-playing schoolboy to one of the most influential dentists in Scotland

Right: Robert at his practice in Nairn

Even as a young man, Robert Donald never shied away from responsibility and leadership, a facet of his personality that has informed his whole career in dentistry.

In his final year at school he was captain of the rugby team that went undefeated for a whole season, despite his comprehensive school Knox Academy playing a host of fee-paying private schools along the way. A natural number eight, the so-called 'leader of the pack', he believes these formative years played a major role in preparing him for what lay ahead. He said: "I think being captain and playing at number eight instilled in me a sense of leadership that continued right through my university degree and into my working life.

"I always try to be the best that I can be, but I also understand the importance of being part of a team, because you can't do it all yourself."

Born in Lanark and schooled in Uddingston and Haddington, Robert Macmillan Donald graduated from Edinburgh Dental School in 1983 and spent the next 18 months in a house officer job in Edinburgh. He quickly realised that it was going to be tough to pursue an academic career at that time – he had ambitions of doing a PhD – so he decided to try his hand at general practice, and he has never looked back.

He moved up to the Highlands in 1985 to a practice in Nairn to work as an associate under Doug Arthur. He then took over the practice in 1989 when Arthur moved on to become one of the advisors to the Scottish Dental Practice Board. It was around this time that Robert's interest in dental politics was kindled. In 1990, with the advent of the new contract, he helped relaunch the Highland Local Dental Committee, which had been defunct for a number of years.

He explained: "In 1990, I was in my early 30s, I had set up my practice and I was wanting to do the best that I could for my patients, but I felt that I couldn't do that with the way the system was designed. So that was a driver to become politically active in order to try and improve the working conditions for myself and my colleagues, so that I could deliver the standard of care for my patients that I was looking for."

The fee cut of 1992 was a major catalyst behind the next phase in his professional life, helping to set up the Highland Dental Plan. He explained: "The date that is etched in my mind is 8 July 1992, the exact date that the government brought in the fee cut.

"They brought in a cut of 7 per cent on the gross fees, which in fact forced me into making a decision about my commitment to the NHS, in terms of being fully committed. At that point my overdraft went over its limit and I had to borrow money to actually stay afloat, which was rather upsetting and embarrassing."

This position of financial dire straits led him to get together with a group of colleagues from the Highlands in order to set up a locally controlled private capitation scheme. He said: "The benefits were that we would have control over it, be able to keep the costs down and therefore we would be able to pass the cost savings onto the patients. So, more of the money that the patient would pay would go towards their care as opposed to paying managers to manage the system."

The Highland Dental Plan was set up in 1993 and, because of the success of the plan, word got out to dentists in other parts

"When I first became chairman we were having big problems. Dentistry was in the news just about every other day"

Robert Donald

of the country. As a result, Robert and his colleagues helped set up Lothian Independent Dental Practitioners, Fife Dental Care, Forth Valley Dental Care and Moray Dental Care. In 1995, an administration company, IndepenDent Care Plans was set up to help run the administration for the local groups and also provide dental plans nationwide. Robert was a director and chairman of the company until 2007, when he stepped down.

Robert's first official role with the British Dental Association was in 1994 when he became a member of the Scottish Dental Practice Committee (SDPC) and also took on the role of the BDA Scotland's press and parliamentary spokesman. However, it wasn't until 2000 that his involvement became more pronounced as he was appointed vice-chairman of the SDPC (2000-2003), vice-chairman of the Scottish Dental Vocational Training Committee (2000-2002) as well as a member of various Scottish Government working parties including IT, occupational health, patient charges and community health partnerships (2000-2006).

In 2003, Robert took over as chairman of the SDPC, the role he has only recently returned to. He explained that during his initial stint – from 2003-2006 – the circumstances were markedly different to today. He said: "When I first became chairman we were really having big problems. Dentistry was in the newspapers just about every other day, due to lack of access. Patients were having difficulty accessing care and dentists were having difficulty providing that care because of the poor funding available."

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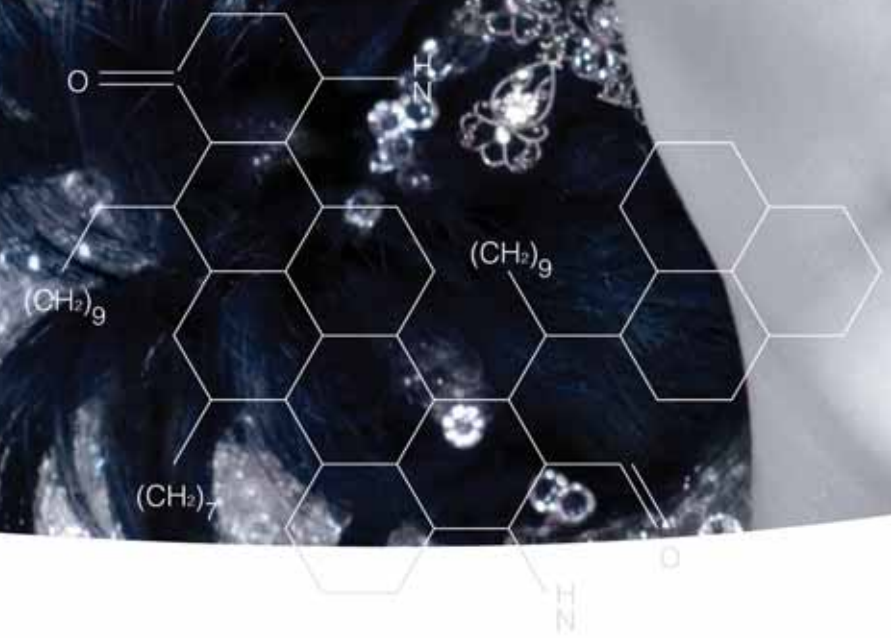

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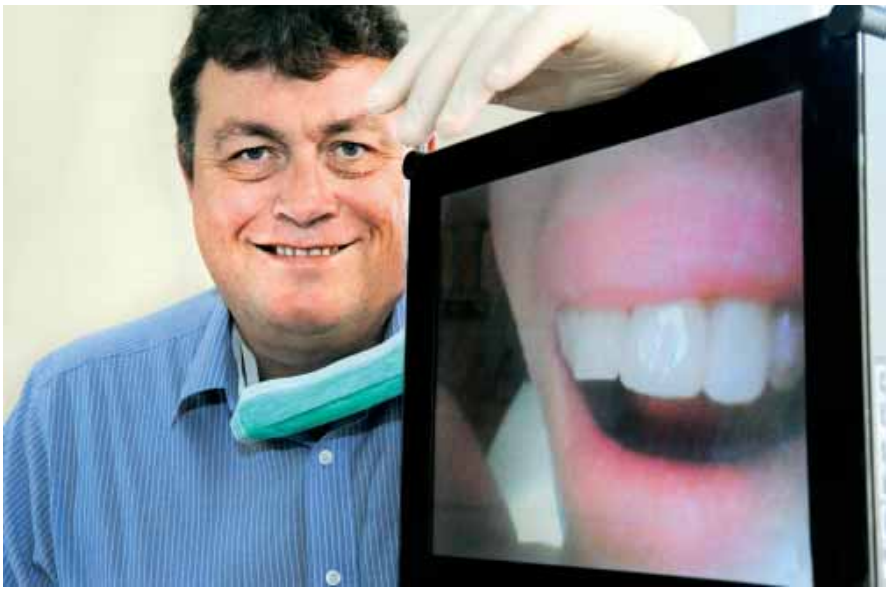

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The funding situation improved dramatically in 2005 with the announcement of the Dental Action Plan, with Robert and his colleagues at the SDPC playing a key role in the change of fortunes for the profession. Robert then decided to step down from his position in 2006, citing the extensive travelling from the Highlands and time commitments as his main reasons for scaling back his duties.

The chairmanship was taken up by Colin Crawford with Robert Kinloch subsequently following him into the chairman's seat. When Kinloch decided to take up a post on the BDA's new Principal Executive Committee earlier this year, Robert decided – with no small amount of encouragement from his peers – to take up the reins again.

He said: "I think now the reason I've probably got involved again is more to do with funding protection as opposed to getting the funding into the service at the moment.

"I think there are going to be difficult times ahead, but it is a different set of challenges that the profession faces at the moment.

"I've noticed a big change in the last 12 years I would say. When I first became involved we were more a national UK negotiating committee. We were a sub-committee of the General Dental Services Committee, but we were negotiating just with the UK Government. But I think over the last few years things have changed to reflect the national variations, so we have the four different countries with their own national contracts.

"So, I think we are in a better place compared to elsewhere in the UK, but don't get me wrong, I do still believe that our NHS services are under-funded. I think it is less under-funded, if you can say that, than when I was chairman before the Dental Action Plan – but that is just where we are."

But, despite an uncertain economic future affecting the industry, Robert is convinced that putting patients first is the only way forward.

He said: "I think that all dentists should be allowed to provide patient care in an environment where they are able to put patients' interests first without having to worry whether the system that is funding the care provides adequate resources for the treatment, or the care that is needed."

And, as well as campaigning for more funding and resources for dentists to diagnose oral cancers, it is the area of general prevention that Robert thinks is the key to a brighter future.

He said: "I would like to see the concept of prevention being introduced more widely into adult dental care. But it has got to be properly funded, there is no point saying we can do prevention and not actually provide the funds for it.

"It was Benjamin Franklin, all those years ago, who said: 'An ounce of prevention is worth a pound of cure.' So I think that is something that we will all need to get our heads around and the government will have to almost have a leap of faith in the dental profession that prevention is the only way to go." ■

"There is no point saying we can do prevention and not actually provide the funds for it"
Robert Donald

Arshad Ali

We put the Scottish Centre for Excellence in Dentistry's clinical director Arshad Ali under the spotlight in our new feature

Q. What do you love most about your job?
The variety in my job is one of the biggest things that I love. My main passion is looking after patients, but I also have a passion for education and teaching.

What I enjoy most is small group teaching. In this type of seminar dentists are much happier to contribute to the discussions, as there is usually a very relaxed atmosphere.

Q. If you weren't a dentist, what would you be?
The thing I always wanted to be was a pilot. From a very young age I used to go to the old Abbotsinch Airport and marvel at the planes coming in and going out.

I have had one lesson up in the sky, but that put me off a little bit. We went up in this little two-seater; the doors wouldn't close easily and the pilot took a while to start the plane! We went around Three Cliffs Bay near Swansea, and I thought that maybe it wasn't for me.

Q. Best piece of technology you own (dental or otherwise)?
This is an easy one – it has to be the i-CAT Cone-Beam CT Scanner. It just changed my life in relation to how I can plan, not just implant cases, but other types of surgery as well.

Q. Best piece of advice you've ever been given?
When I was in Glasgow in 1982, I was offered a specialist training post in Cardiff. I worked with a consultant oral surgeon called Nazir Merchant and confided in him that I didn't really want to go as all my family and friends were up here. He sat me down and said: "Look son, where did your dad come from? How many miles did he travel?"

"We went up in this little two-seater, the doors wouldn't close easily, the pilot took a while to start the plane"

He came from Pakistan, left all his family for a foreign country, he didn't speak a word of English, had virtually no money and he only had a couple of friends who were already in Glasgow. So he said: "You get your butt down there because you are going nowhere, you are just going down the road!"

I left Glasgow and went on to be taught by some great clinicians in Cardiff Dental Hospital. So it turned out to be a great move and the advice was fantastic.

Q. On a day off, what would we find you doing out of the surgery?
Either playing golf or playing with my two grandchildren. My grandson is a year old and my granddaughter is only a few weeks old. They have really changed my life since they came along.

Q. Who's your hero (dentistry or otherwise)?
A chap called Jan Pameijer, who is now retired, but back in the mid-1980s, I went over to spend time with him. He was a restorative dentist based in Amsterdam and he had a specialist practice there.

Clinically, academically and from a teaching point of view, he is probably the finest dentist I have ever had the fortune of meeting, working with and being taught by.

Q. If you could relocate your practice to any time or place, where would it be?
I'm very happy here, but, if I could lift and transport the clinic, I would take it to New York, the city that never sleeps!. I would probably work two days per week and have five day weekends!

Q. Favourite film (doesn't have to relate to dentistry!)
I'm a big fan of Clint Eastwood and my favourite would have to be Dirty Harry.

Q. Favourite tipple of an evening?
I would have to say a mocktail with plenty of ice, a big slice of lemon and a curly straw.

Q. Favourite food?
People who know me know that I like all types of food. My favourite food has to be curry and it has to be in Mother India. My favourite dish there is chicken shashlik, with basmati rice, naan and a nice salad. ■


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Taking an interest in technology

Callum Graham has forged a successful career for himself despite a number of potential setbacks

Despite being discouraged by his careers advisor at the age of 14, Callum Graham didn't stop aspiring to become a dentist. He just took a bit of a detour along the way.

After being told that his grades in science weren't strong enough, the young Callum left school and began work as a civil engineer. However, after a few years his desire to become a dentist hadn't abated and he decided to head back to full-time education.

He enrolled at Langside College at the age of 22 to finish his Highers and, on completion, he applied to both Glasgow and Dundee Dental Schools. Agonisingly, he missed out on entry by a single point and was forced to apply nationally, and he was accepted at Newcastle.

Callum explained that starting a university course at 24 and being surrounded by 18-year-olds, was something of a culture shock, but he believes his experience of working life stood him in good stead. "I think it made me appreciate life more having had a few years in work," he said. "It was quite hard getting back into studies after so long but I think I was much more focused on what I wanted to do than when I was 18."

He admits that, with his late start to dentistry, there has been an element of "playing catch-up", however, he believes this has only been a positive as it has made him work harder and appreciate the successes all the more.

He did his vocational training in Carlisle and then moved back to Scotland to work as an associate, firstly in Greenock with Stewart Wright and then with Colin Burns in Crow Road in the West End of Glasgow.

While he had no set plans to go out on his own and buy a practice, a chance to do just that fell into his lap one day in 2005 as he perused the BDJ. He noticed a practice for sale in South Lanarkshire and set about finding out some more information. The practice was situated on Kirkton Street in Carluke and, despite needing a bit of modernisation, it had a good patient base and showed plenty of promise.

He took over the practice and renamed it Tooth Doctor, providing a full range of NHS as well as private treatments including implants, tooth whitening, smile makeovers and facial cosmetics. As well as installing a CT scanner, he introduced an in-house laboratory to complete all the technical work and provide a full-service solution.

Above: Callum talks a patient through an oral scan image

"It was quite hard getting back into studies after so long but I was much more focused on what I wanted to do"
Callum Graham

With the Carluke practice going from strength to strength, Callum had no intention to expand but, after a chance conversation with rep Joanne Robertson from Henry Schein – with whom Callum sources much of his equipment and consumables – in May 2011, his plans suddenly changed. Joanne mentioned that a practice in the Southside of Glasgow was coming on the market and recommended that Callum check it out.

The practice was Queen's Drive Dental Practice, a well-established practice that was started in 1907, overlooking Queen's Park. Situated in a traditional sandstone tenement building on the corner of the busy Victoria Road, the business immediately got Callum's attention.

He took over the mainly private practice in November 2011 and refurbished his own surgery early

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Left: The practice has an in-house laboratory

Right: The Sirona oral scanner in action

Continued »

this year. The surgery was remodelled with new cabinetry, chair and other equipment including a Cerec Omnicam oral scanner and in-lab system. The flooring was installed by Smithstone Flooring who placed a hard-wearing, non-slip vinyl – Polysafe Corona – that is proving popular with hospitals and other NHS facilities due to its durability and ease of cleaning.

As he did in Carluke, he has installed a CT scanner and an in-house lab at Queen's Drive, this time with three dedicated technicians. This investment in technology with the Cerec system and the lab means he is able to offer crowns and even some implants within 24 hours. Callum also offers 'Teeth-in-an-hour' and 'All-on-4' as well as Columbus Bridges and other restorative treatments.

He said: "I think it is important to embrace technology as advances such as digital dentistry are improving every element of patient care. We can now do things faster and more efficiently than ever before.

"For example, with an in-house lab I can improve the quality of prostheses and get closer shade matching as the technician can meet the patient at the start of treatment in the practice."

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Continued »

Callum placed his first implant in 2004 and since then he has gone on to place more than 1,000 implants. He has previously used Straumann implants but now uses a combination of BTI and Implantium products, depending on the case. Ironically, he believes that his engineering background has fed into his work with implants and bridgework in particular, as they share many of the same theories and processes, only on different scales.

Through his implant work, Callum has worked closely with BTI (Biotechnology Institute) a Spanish implant company that specialises in translational regenerative medicine. The company is a pioneer in the development and therapeutic use of Plasma Rich in Growth Factors (PRGF-Endoret), with 37 international patents in its portfolio.

Callum has visited the company's base in Vitoria and has seen the PRGF-Endoret system first-hand. This involves blood being taken from the dental patient, the plasma-rich proteins extracted using a centrifuge and the plasma adhered to either the implant prior to placement, or post-extraction sites and sinus elevations. The technology has been shown to stimulate the healing of wounds, improve the osseo integration of soft tissues and accelerate the osseointegration of implants. It also provides an autologous clot and a biocompatible fibrin membrane to fill in and seal defects which, in addition, reduces inflammation.

"We will be using this for facial rejuvenation treatments as it is more natural than Botox"

Explaining treatment options

As well as this, Callum is getting involved with stem cell collection from vitally-extracted teeth and other exciting developments, including facial aesthetics using the PRGF-Endoret technology.

Callum said: "We will be using this for facial rejuvenation treatments as it is more natural than Botox and fillers. It smoothes wrinkles and stimulates the natural production of collagen, as well as other benefits."

Allied to all this, Callum has recently acquired another practice, a mixed NHS-private business in Larkhall, which he hopes is up and running by the end of November. Not bad for a boy who left school without his Highers... ■

When a former post office in Dumfries was transformed into Great King Street Dental Practice, it breathed new life into the area – and gave both patients and practitioners access to state-of-the-art services

Dental practice puts its stamp on town

After lying vacant for nearly five years, the old post office building had turned the once-thriving Great King Street in Dumfries into a virtual ghost street.

Rumours had flown about over the years that one of the big supermarkets was set to take over the building that had served the community for more than 80 years, but to the town's disappointment, nothing ever materialised.

Then, in mid-2010, the health board announced that the old post office HQ was to be turned into a new NHS dental practice to not only revitalise the street, but also help slash waiting times for local residents.

Great King Street Dental opened in February 2011 with the hope that it would immediately reduce the waiting list in the Nithsdale area from more than 5,000 to less than 300. The demand for NHS dentistry in the town was so great that the practice was open and busily registering patients from 7am until 11pm that night.

Practice manager Elaine Jones and owner Suleman Khan manned the reception desk all day, with clinician Dr Osama Mochli holding a surgery from 5.30pm until 11pm after he had worked all day at another practice.

In the first four weeks the practice registered 1,029 patients and had booked appointments for more than 80 per cent of those. By October 2011, they had registered 4,138 patients and expanded from one surgery with a part-time clinician (Dr Mochli) to a thriving four-surgery practice with 10 members of staff.

The practice in Great King Street

Dr Mochli was joined by Alex Kyriazatis in April 2011, followed by orthodontist Alicia Martin in August and new associate Felix Wucherpfenig in October.

Practice manager Elaine said: "Although we had surpassed all the targets set for our first year in practice – for which we gave each other a well-deserved pat on the back – Mr Khan and I were not happy to sit back and watch. So, at this point, we held a buzz session on how we could further expand the services we offer not only to the general public, but also to other local dentists within the region."

They spoke to a number of colleagues in the region and decided to invest £80,000 in a cone beam CT (CBCT) scanner for their patients and for dentists in the local area to refer their patients to the practice. Elaine continued: "The CBCT has proved an invaluable piece of kit, not only to our in-house orthodontist Alicia Martin by saving her orthodontic patients unnecessary trips to the X-ray department of the local hospital for an OPG, but to all the patients of local dentists as we are now a referral practice for 3D scans."

Since buying the scanner, Elaine and her colleagues noted it was mainly being used by referring dentists for guided surgery such as implants. Elaine said: "Looking into this topic, we found it to be very elitist within the Nithsdale region, being out of the price range of the everyday person, and so our next challenge evolved.

"The aim was to take the elitism out of dental implants by sourcing the right-quality product and an implant surgeon with the same ethos and goals as ourselves – patients come first and the highest of standards."

That implant surgeon turned out to be Cumbrian dentist Mike Booth. The Manchester graduate placed his first implant in 1989 and has gone on to place more than 2,500 in his career to date. He said: "I am passionate about my profession, loving the intricacies of providing the highest-quality dentistry possible. I believe the provision of 'same-day teeth' will become the norm, along with the integration of CAD/CAM techniques into daily practice. Clearly this is only possible by forging strong relationships with our dental technicians."

Rather than describing patients as customers or clients, Elaine and her team insist on referring to them as their guests. This, she says, is to enhance the patient experience and provide the highest level of care. These lofty ambitions don't end at the walls of the practice either, as Elaine explains: "We believe that all practices within a community should work towards bringing their individual skill sets/specialties together in order to strengthen locally the dental services offered to patients, and to build a team of local practitioners who refer out to colleagues who have a specialist interest."

Above: Great King Street Dental Practice offers state-of-the-art facilities, including a cone beam CT scanner

"The aim is to develop a healthy bond between clinicians who work well together rather than individual practices. This would not only benefit patients, but also aim to alleviate the pressure of long waiting lists away from the Community Dental Services."

To this end, the practice held an open evening in the summer with clinicians attending from throughout Dumfries and Galloway and nearby Cumbria, as well as patients and potential patients from the local area. The aim, as well as attracting new patients and showcasing the practice to existing patients, was to provide an opportunity for referring dentists or referral dentists to get in touch, network and discuss any relevant cases.

As it moves towards its second anniversary, the practice at Great King Street has certainly made a big impression in the local community. Trevor Knowles from HK Financial Advisors on Great King Street, said: "Great King Street Dental has filled what was a large void in this small street. Now we have a thriving dental practice which has created employment, enhanced the appearance of the street and has added to the range of commercial enterprises. They are a welcome addition to Great King Street."

And Mike Graham from Café Continental, also on Great King Street, said: "I can say without reservation that the opening of Great King Street Dental Practice has brought a new source of clientele and prosperity to a once-ailing set of businesses.

"I am also a patient and from the moment I entered the practice, I knew I had made the right decision. They give you a warm welcome and nothing is too much trouble." ■

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Preventive periodontics

The days when extractions were seen as the only option for patients with periodontitis are long gone, but are we paying enough attention to maintaining the natural dentition? Marilou Ciantar investigates

For most of the 20th century, extractions seemed to be the standard, or even perhaps the preferred, treatment option for patients presenting with periodontal problems.

Many older individuals recount that it was fairly 'routine' to have teeth extracted at 20 or 30 years of age and be fitted with dentures. Even today, some patients seem to think that having teeth extracted and replaced with prosthetic restorations (preferably implant-retained) seems to be a better option than maintaining one's own dentition.

What advice do we give our patients? Do we adequately emphasise the importance of maintaining the natural dentition? How good are we at stressing the importance of preventive periodontics?

The presence of bacteria in the oral cavity was established many centuries ago by the Dutch scientist Antonie van Leuwenhoek (17th century). He is mostly renowned for the development of lenses with increased magnification (the microscope) under which he examined accretions, "a little white matter" as he described it, from around his own teeth and those of others.

Leuwenhoek found "an unbelievably great company of living animalcules... in such enormous numbers". This was the first sighting of dental plaque (oral biofilm) as we know it today.

Pierre Fauchard in the 18th century advised that "teeth should be periodically cleaned by the dentist". In spite of these discoveries and the fact that toothbrushes have been around since 3500 BC, most dental treatment, until fairly recently, consisted of extraction of the offending tooth or teeth.

The importance of oral hygiene in reducing or eliminating periodontal diseases started to come to light in the early 1960s. A Norwegian study set out to improve the periodontal status of a large cohort of patients by improving their oral hygiene techniques. This was accomplished through meticulous instruction in oral hygiene and interdental cleaning together with supra and subgingival scaling[1].

The results of the study showed that gingival conditions improved by 60 per cent and the loss of teeth was only 50 per cent of the estimated tooth mortality.

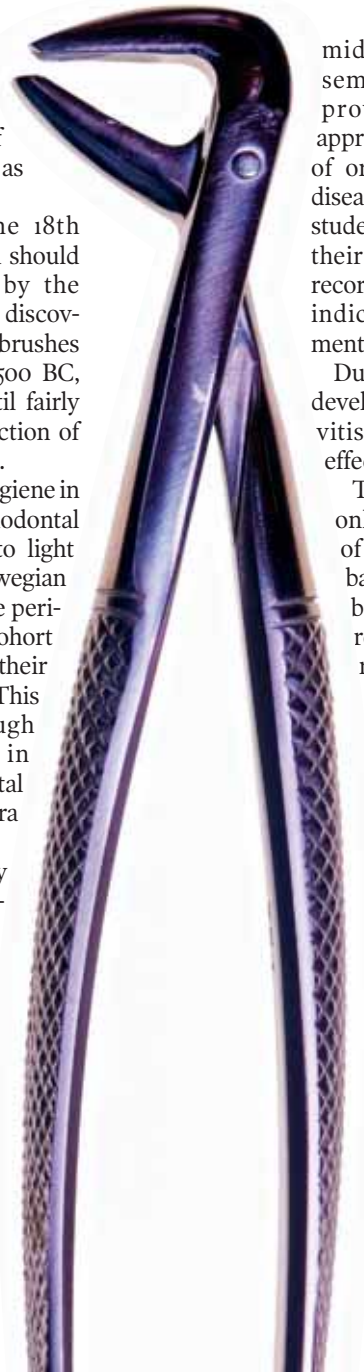
It was not until the mid-1960s, however, that the seminal work of Harald Löe[2] provided an evidence-based approach between the association of oral bacteria and periodontal diseases. Löe asked a group of dental students to refrain from brushing their teeth for three weeks. He recorded plaque and oral hygiene indices throughout the experimental period.

During this time, the students developed clinical signs of gingivitis, which resolved following effective oral hygiene measures.

This classical experiment not only provided sound evidence of the causative link between bacteria and periodontal disease, but it also demonstrated that removal of dental plaque led to resolution of gingivitis.

The following years saw a cascade of papers[3,4,5,6,7,8] that led to changes in treatment concepts, emphasising the crucial importance of plaque control not only during the active phase of treatment, but also during supportive periodontal maintenance.

"How good are we at stressing the importance of preventive periodontics?"



Active phase of treatment

The majority of patients own a toothbrush and claim to use it on daily basis; whether it is used effectively is another matter. Patients who are registered with a dentist will receive a dental

Continued »


Fig 1

Fig.1. Use of interspace brush within the furcation area. The patient had undergone periodontal surgery to treat the 'through and through' furcation defect. The photo also demonstrates reversed gingival architecture

Fig.2. Patient demonstration on how to remove plaque at the dento-gingival junction, in this case using a single tufted brush, forms a crucial part of non-surgical periodontal therapy


Fig 2

Continued »

check-up and a scale and polish routinely. While this is beneficial, it might impart the notion that the responsibility for oral and dental health resides with the treating clinician rather than with the patient.

Removal of the dental biofilm remains the cornerstone of preventive dentistry and of non-surgical periodontal therapy[9]. Good patient supragingival plaque control can influence the microflora in pockets up to 4mm, thereby reducing the build-up of periodontal pathogens subgingivally[10,11].

The removal of the supragingival bacterial deposits is the patient's responsibility. It depends on the patient's desire to improve their oral health, on manual dexterity and also the patient's knowledge of oral and dental anatomy imparted by the treating dentist, dental hygienist or dental therapist.

This is even more important when the periodontal architecture has been altered as a consequence of disease, such as reversed gingival contour, gingival recession and exposed furcation defects (Fig 1).

These areas are more difficult to maintain and the patient will need to be more attentive during daily hygiene routines. The demonstration of the effective use of a toothbrush and interdental tooth cleaning aides, at the labial/buccal or lingual/palatal tooth-gingiva junction is paramount if the patient is to perform effective plaque removal (Fig 2). This is important in all patients, particularly so in those who are susceptible to periodontitis.

It is the author's experience that a significant number of patients with periodontitis are not shown how to achieve and maintain a high standard of self-performed plaque control; they are, however, often enrolled for a three-monthly scaling and polishing.

Certainly, the removal of calculus facilitates the patient's endeavours to keep plaque at bay. However, more important is the patient's education and efforts in plaque control which can then be followed by root surface debridement, i.e. removal of the subgingival biofilm.

This is key to successful periodontal treatment provided that it is targeted at sites which warrant it (i.e. limited only to periodontal pockets) and provided the patient maintains effective supragingival plaque control.

Clinical studies have shown that recolonisation of periodontal pockets to pre-treatment levels occurs within a few weeks following professional instrumentation if supra-gingival plaque control is not performed effectively, rendering previous therapy ineffective[12]. It is important to appreciate that sites that are healthy should not be instrumented, as this will induce loss of attachment[13].

Supportive periodontal maintenance

Once the active phase of periodontal treatment is complete and periodontal pocket elimination has been achieved (whether by non-surgical or surgical means), the patient then enters a periodontal maintenance phase known as supportive periodontal therapy (SPT). SPT is defined as "the essential need for therapeutic measures to support the patient's own efforts to control periodontal infections and to avoid recontamination"[14]. SPT has two integral components:

1. Regular visits by the patient; these should yield positive feedback, encouraging the patient to maintain as plaque-free a dentition as possible.
2. Continuous diagnostic monitoring of the patient by the clinician in order to intercept with adequate therapy at the optimal time.

During these visits, the patient's plaque control needs to be routinely monitored and its importance re-emphasised. The periodontal assessment performed at the beginning of the maintenance phase includes a periodontal risk assessment (PRA[15]). Based on the clinical findings at the end of the active phase of treatment, the PRA determines the patient's risk of disease recurrence and also suggests the frequency of recall.

Thus, the SPT programme should be based on the patient's risk susceptibility and should be tailored to the patient's needs accordingly. High-risk patients should be seen every three to four months, while for low-risk patients, an annual visit will suffice.

Long-term follow-up studies have confirmed that periodontitis can, in most cases, be treated provided the patient is enrolled in a maintenance care programme, maintains a high standard of plaque control[16,17,18] and refrains from smoking[19].

The importance of SPT (which is different from the routine scale and polish) cannot be overemphasised. Periodontal therapy will be far less effective in the presence of poor plaque control and inadequate supportive periodontal therapy[16,20,21,22,23].

"The SPT programme should be based on the patients' risk susceptibility and tailored to their needs"

ABOUT THE AUTHOR

Dr Marilou Ciantar is a specialist periodontist and oral surgeon at Blackhills Specialist Referral Clinic, Aberuthven, Perthshire. She welcomes referrals for periodontal treatment, implant surgery and oral surgery, including treatment under sedation for anxious patients. Marilou is also senior clinical teaching fellow in oral surgery at Aberdeen Dental School.

Benefits of preventive periodontics

Teeth will last for life unless they are affected by dental diseases or inadvertent trauma. Teeth surrounded by healthy periodontal tissues have a long life expectancy of up to 99.5 per cent over 50 years[24].

Even if teeth are periodontally compromised but treated and maintained regularly, their survival rate is very high – about 92-93 per cent[25].

Several long-term studies spanning 15[26], 22[27] and even 30 years[28] provide evidence that patients who received periodontal treatment, who are enrolled on a supportive maintenance care programme and who are motivated in maintaining a high standard of plaque control show very high survival rates for teeth.

Such patients were constantly encouraged to recognise and enjoy the benefits of maintaining a high standard of oral hygiene; this was seen to give them a sense of well-being. This is not to say that a small number of teeth are not lost due to periodontitis in the highly susceptible periodontal group.

Implants might be an alternative treatment option which the patient might choose to replace missing teeth. Implants should not be used to replace premature removal of teeth.

The 10-year success rate for implants is about 98 per cent[29] in the non-periodontal patient, while that in the periodontally susceptible patient it is about 90 per cent[30]. Implant maintenance is as important and as intensive as periodontal maintenance[31].

Furthermore, implants are not problem-free and it is estimated that up to 43 per cent can develop peri-implantitis if not well maintained[32]. Peri-implantitis is very challenging to treat (certainly in the author's experience) and is a less reliable treatment option when compared to periodontal treatment.

The importance of practising preventive periodontics cannot be overemphasised and should be the mainstay of each and every treatment plan. ■

Full references for this article are available on request, or by visiting http://bit.ly/preventiveperio

Appointment. Bearsden practice welcomes new member to the team

New perio referral service

Stephen Jacobs and the team at Dental fx are proud to announce the recent launch of a new periodontal referral service for all dental practitioners.

Lee Savarrio, a registered specialist in restorative dentistry with a sub-specialty interest in periodontics at Glasgow Dental Hospital, has joined the team at Dental fx and is working regularly on Thursday afternoons, carrying out all forms of periodontal and peri-implant treatment.

Stephen Jacobs, clinical director at Dental fx, said: "Over the last few years I have found that the provision of specialist periodontal treatment is in short supply, with only a small number of specialists carrying out treatment in private practice and specialist periodontal services in the NHS becoming increasingly difficult to access.

"Furthermore, many of my colleagues who refer patients for various forms of implant treatment, have asked if I can provide or recommend anyone for treatment of periodontal disease. While I have carried out much of this treatment myself, I had been thinking of adding someone with a special interest in periodontics to the team and I am delighted to welcome Lee to Dental fx."

Lee said: "While we are extremely busy at the dental hospital, I felt that there was still a shortfall in provision and that there were still many dentists who needed an additional referral destination for their patients suffering from periodontal disease, some for many years, where they could be seen a little quicker and get a complete continuity of care.

"Working with Stephen and his team, I can also utilise some of the more contemporary periodontal techniques, using the latest generation of biomaterials used for guided tissue regeneration."

"Working with Stephen and his team, I can also utilise some of the more contemporary techniques"

Stephen finished by saying: "Lee will be delighted to see patients for the treatment of the whole range of periodontal and peri-implant diseases. He will carry out the majority of the treatment himself, the remainder he shall coordinate with either one of the in-house hygienists at Dental fx, or the referring dentist's hygienist, whichever the referrer prefers.

"We are also taking greater numbers of referrals for patients with peri-implant disease, where their dentist has required an outlet for help with these patients' care. We have set protocols for the treatment of peri-implantitis and peri-implant mucositis." ■

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Periodontal treatment in a day?

Periodontitis can cause significant problems and is often difficult to treat effectively. Lee Savarrio looks at an alternative treatment strategy to improve outcomes and minimise appointment numbers

Periodontitis is an inflammatory destructive disease affecting the supporting structures of the teeth. It is characterised by loss of periodontal attachment that can lead to eventual tooth loss. The disease process is thought to be caused by an imbalance between the microflora at the gingival margin and the host response, affected by systemic and environmental modifying factors.

The treatment of periodontal disease is acknowledged to be variable in quality and, indeed, a review of claims notified to the Medical and Dental Defence Union of Scotland during 2006 confirms an increasing number involving allegation of failure to diagnose and treat periodontal disease.

Practitioners were recommended to ensure that periodontal assessment was undertaken with a diagnostic outcome or conclusion reported to the patient, including any advice or warnings given about the condition and prognosis and that there should be a clear statement of treatment options and a treatment plan including management of any periodontal condition.

This treatment plan must involve a phase of active periodontal treatment (hygiene phase therapy) followed by reassessment and any further treatment (including surgical or regenerative). Only then should the patient be placed on regular supportive therapy and this should be risk assessed as to the frequency of visits.

The active hygiene therapy phase, also referred to as anti-infective therapy, is based on the proposed aetiology of the patient's condition. As previously mentioned, periodontal breakdown develops when the microbial load within a periodontal pocket overwhelms the local and systemic host defence mechanisms.

This can be related to qualitative or quantitative changes in the micro-organisms present or because of a change in host responsiveness (up or down regulation). Changes in the host response can be explained by genetic factors and by environmental factors such as poor oral hygiene and smoking. Medications or systemic conditions can further impair these host defence mechanisms.

"The treatment of periodontal disease is acknowledged to be variable in quality"

Lee Savarrio

Modulation of the host response is difficult to achieve and therefore the primary focus for periodontal therapy is reduction of periodontal pathogens, in combination with the re-establishment of a more suitable environment in which non-pathogenic microbes may be encouraged. Several studies indicate that the presence of periodontal pathogens after treatment is associated with poorer clinical outcomes.

These micro-organisms remain either by persistence through treatment or by re-establishment after treatment and, indeed, implant studies have shown that a pristine pocket may be infected by periodontopathogens such as Aggregatibacter actinomycetemcomitans and Porphyromonas gingivalis in tissue-level implants, within 30 minutes after implant insertion. After one week, the peri-implant tissues show a nearly identical microflora to those of the neighbouring periodontium.

These observations indicate that supragingival plaque plays a significant role in the subgingival recolonisation of periodontal pockets. As such, bacteria in the saliva or on the tongue, tonsils or oral mucosa may well have an impact on the subgingival recolonisation of pockets after periodontal therapy.

With this in mind, a one-stage, full-mouth disinfection (OFMD) procedure was proposed as a new treatment strategy[1,2]. This consisted of scaling and root planing of all pockets in two visits within 24 hours, in combination with adjunctive chlorhexidine treatments of all oral niches. More specifically, the full-mouth scaling and root planing was supplemented with subgingival irrigation (three times, repeated within 10 minutes) of all pockets with a 1 per cent

Continued »

Fig 1

Aim of periodontal treatment – healthy periodontal attachment

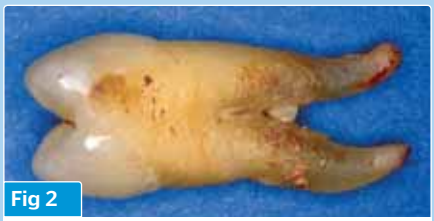

Fig 2

Extracted premolar tooth with subgingival calculus and biofilm obvious

Fig 3

Bleeding on probing and purulent discharge from deep periodontal pocket

Continued »

chlorhexidine gel in order to suppress the remaining bacteria subgingivally. Tongue brushing was performed by the patient with a 1 per cent chlorhexidine gel for one minute to suppress the bacteria in this niche, as well as chairside mouth rinsing with a 0.2 per cent chlorhexidine solution for two minutes to reduce the number of bacteria in the saliva and in the pharynx, including the tonsils (by gargling or via the use of a local spray), prior to and after each session of root planing.

Optimal oral hygiene was supported during the first two months by a 0.2 per cent chlorhexidine mouth rinse to retard the recolonisation of the pockets.

In addition to the avoidance of translocation of microbes and subsequent reinfection of sites, further mechanisms of action of OFMD include a 'vaccine effect' with a high-load bacteraemia. It is noteworthy in one study that significantly more of the patients whose body temperature rose above 37˚C after the second day had an overall average pocket depth reduction of >3.5 mm.

Some studies report that this full-mouth treatment approach resulted in superior clinical outcomes and microbiological effects compared with conventional quadrant scaling and root planing irrespective of the adjunctive use of chlorhexidine. Conversely, more recent studies from other research centres have failed to demonstrate an advantage of full-mouth scaling within 24 hours versus the control regimen[3,4]. Although in one of the studies[4], a one-stage full-mouth approach resulted in 26 per cent more sites with a reduction in pocket depths to <5 mm when compared with a staged approach.

There is an argument that specifically in deep pockets (>6mm), there might be more benefit from the OFMD approach. As mentioned previously, supragingival plaque control affects both the total number of bacteria and the composition of the subgingival microbiota. As the number of periodontopathogens in saliva increases significantly with increasing severity of periodontitis, the likelihood of cross- contamination will be higher in patients with periodontitis.

"Systemic antimicrobial use may be justified in patients suffering from aggressive periodontitis"

Lee Savarrio

Indeed, it is known that the microbial load in saliva is significantly reduced in periodontitis patients after therapy, leading to a reduced rate of new supragingival plaque formation. Thus, in patients with severe periodontitis, a one-stage, full-mouth approach will result in an immediate reduction of the microbial load and delayed de novo plaque formation, which may result in a delayed subgingival recolonisation.

A recent systematic review could only find a modest additional reduction of probing depth in OFMD compared to the conventional treatment for sites with an initial probing depth of at least 5 to 6mm in single-rooted teeth. Furthermore, the authors questioned whether this small difference in outcome could justify the extensive use of chlorhexidine over a period of several months.

Also, additional improvements from OFMD are inconsistent across tooth types and initial pocket depths and, therefore, no recommendations could be made regarding additional benefits on the basis of the clinical data to date. They stated that the decision to select one approach to non-surgical periodontal therapy over another needs to include patient preferences and convenience of the treatment schedule[5].

In a further aim to reduce the microbial load, researchers have also looked at OFMD with the use of adjunctive antibiotics[6]. Generalised aggressive periodontitis (G-AgP) patients may benefit from this non-surgical approach, although the relative importance of microbial intra-oral translocation in the development and maintenance of periodontal infection in these patients is still undetermined.

Adjunctive antimicrobial therapy with systemic antibiotics affects bacteria out of the range of root surface instrumentation locally adjacent to the pocket, as well as those residing in oral mucosal surfaces. Recent reviews suggest that patients with G-AgP appear to benefit from their adjunctive use. Among the variety of antimicrobials studied, the combination of amoxicillin and metronidazole seems to be an effective therapy, possibly because of the synergistic effect of this combination and its wide spectrum of activity.

This is of particular importance in G-AgP patients who yield a high prevalence of A. actinomycetemcomitans and anaerobic pathogens in the subgingival microbiota. Indeed, it seems that clinical and microbiological improvements can be expected in the treatment of G-AgP with the adjunctive use of amoxicillin and metronidazole. In line with the microbiological focus of treatment, especially in this group of patients, some operators also advocate microbiological sampling and specific antimicrobial use rather than empirical prescription.

Conclusion

Whereas the overall benefit of a full-mouth disinfection approach continues to cause disagreements in the periodontal literature as to its superiority over a conventional quadrant approach, it should

ABOUT THE AUTHOR

Lee Savarrio is a registered specialist in restorative dentistry with a sub-specialty interest in periodiontics, working at Glasgow Dental Hospital and, most recently, at Bearsden clinic Dental fx. He graduated from Glasgow in 1993 and was accepted onto the specialist list for restorative dentistry in 2004. He also has an MSc in Medical Science from the University of Glasgow and received his FDS (Rest Dent) from the Royal College of Physicians and Surgeons of Glasgow in 1999.

be remembered that it has never been shown to be less effective. Clearly, the treatment over a period of 24 hours will suit particular patients and is an effective evidence-based approach.

It appears that any benefit of the OFMD approach may be more pronounced in patients with severe periodontitis and that in aggressive periodontitis patients there may be justification in prescribing adjunctive antimicrobials.

The use of a full-mouth approach should not mean that basic periodontal philosophies are ignored, most important of these being self-performed plaque control. Use of a manual or electric toothbrush should be reinforced.

A systematic review[7] has found that rotation-oscillation powered toothbrushes remove plaque and reduce gingivitis more than manual brushes in short and long term. No other powered designs were consistently superior to manual toothbrushes. In addition, the use of appropriate interdental aids cannot be overemphasised. A tight supportive therapy protocol is also imperative in order to ensure good clinical outcomes are sustained long term.

In relation to the title of this article, it should be emphasised that the OFMD stage of treatment should be undertaken after the patient has reached adequate levels of self-performed plaque control and motivation and should be followed up by a strict supportive therapy programme based on risk and, as such, means periodontal treatment in a day is, unfortunately, still nowhere on the horizon. ■

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When all-in-one might not do it all

Equipment is an important expense but, in the pursuit of efficiency, regulations cannot be ignored

DOH Guidance: Validation is the means by which an entire process is verified, tested and documented, with the ability to be consistently reproducible. Ensure that... procedures used in the practice are validated. This is to demonstrate that all instruments and equipment cleaned by these methods are reliably and consistently cleaned using predetermined and reproducible conditions.

Despite advances in technology and the advent of some hi-tech alternatives, as the 'tools' of your trade, handpieces remain arguably the most important piece of equipment in the dental surgery. Although handpiece selection is most often determined by the personal choice of the practitioner, the available budget or even the brand used at dental school, increasingly the durability of handpieces is becoming an important factor in the purchasing decision.

But the truth is that, despite manufacturers' warranties, handpieces will only last if they are cared for and maintained in an appropriate way and according to individual specifications. Alongside this, guidance now dictates that the cleaning and sterilisation of handpieces must take place after every use and to a degree that would have never been dreamt of 30 years ago.

Validated handpiece cleaning and care system from Eschmann

Keeping pace with these demands undoubtedly puts pressure on the decontamination resources (both equipment and personnel) of most general practices and often practice managers are motivated to look for solutions that they perceive as being time and space saving. But in the quest for efficiency, managers must not lose sight of the purpose of the regulations; i.e. to ensure that correct cleaning and sterilisation procedures are followed in order to safeguard patient well-being.

So, for a decontamination procedure to be economical and time saving, it also has to be effective, otherwise a practice is leaving itself open to accusations of, at best, inefficiency and at worst non-compliance.

There are three key processes in handpiece cleaning and disinfection; cleaning, lubrication and sterilisation and the ability to individually validate each of these processes as separate functions is a vital part of a practice's compliance.

After cleaning, the handpiece should undergo a visual inspection. This should be carried out under illuminated magnification by the designated member of staff, to confirm the instrument is free from "any visible soiling such as blood or dental materials". A second element of validation is the print-out provided automatically by the autoclave after sterilisation, which should be recorded and stored as evidence of compliance.

There are a variety of solutions available for handpiece decontamination; some involve using separate methods to carry out each of the processes; cleaning, lubrication and sterilisation but, more recently, the development of all-in-one equipment that claims to save time and space have offered a perceived attraction to some practitioners.

One of the limitations of all-in-one equipment is that there are no means by which

Continued »

Fig 1

Handpiece exterior after cleaning

Fig 2

Turbine after cleaning

Continued »

to validate if the handpiece is clean prior to lubrication and sterilisation. This brings into question whether handpiece decontamination using this type of system can ever be regarded as complying with guidance.

Figure one shows the presence of residual blood that remained on the surface of instruments after the cleaning phase of a typical all-in-one system. Without the ability to check whether the instruments are clean, these handpieces would have gone through the sterilising phase while still being contaminated.

As a minimum these instruments would have to be re-processed before they could be considered sterile for use, something that may be a lot more difficult second time around as a result of the potential for these residues having been 'baked' on during the previous cycle.

It is conceivable that the only way to avoid these risks and to be able to validate each stage of the decontamination cycle in accordance with guidelines, is to use equipment dedicated to each stage of the process, thereby allowing each stage to be correctly and accurately validated. Cleaning handpieces using either a washer disinfector, especially one with a proven directional irrigation system, or a dedicated handpiece cleaner with validated cleaning and lubrication, followed by the use of a rapid handpiece-specific autoclave, gives total peace of mind and facilitates full compliance, in the shortest possible time.

In respect of the all-important process of how to effectively clean handpieces, critical consideration must be given to how a particular system addresses the issue of internal lumen cleaning. The cleaning of the external surfaces and subsequent validation is relatively simple; the use of an effective cleaning and disinfection wipe is more than adequate as one can visually check whether the instrument is clean and free from debris, or not.

However, this is not the case when it comes to the decontamination of internal surfaces and the user has to trust the proven efficacy that the equipment being used is capable of cleaning the internal lumens and components.

Figure two is an example of the residual contamination that has been found on the turbines of handpieces that have been cleaned in an all-in-one system. It is therefore recommended that in order to ensure effective internal cleaning, serious consideration should be given to only using equipment that employs systems which have been proven in tests and which offer validated cleaning performance.

"Thorough cleaning is only one stage in the decontamination process"

The directional irrigation adaptors used in certain devices are designed to channel the flow of cleaning solution through the handpiece in such a way that it is capable of removing dirt and debris. In these systems the cleaning solution (cold water is not a particularly effective 'solution') is fed, under pressure, directly into the import lumen, circulating around the turbine head, removing dirt and debris before flowing out through the exhaust lumen. In addition, detergent is also forced through the spray lumens and other internal workings of the handpiece. In this way protein residues and other contaminants are completely removed from the internal lumens of a handpiece.

In 2009, Eschmann undertook rigorous testing of their washer disinfectors (with directional

irrigation) for an NHS tender in Scotland. The testing required handpieces to be soiled, left to dry and then cleaned. The work was independently witnessed by professionals in order to comply with the demands of the tender and the equipment used was found to be "highly effective".

But thorough cleaning is only one stage in the decontamination process and correct procedures post-cleaning are vital to maintain the performance of handpieces and help prolong their effective working life.

The best way to achieve this will be to use an automated Handpiece Care System, one that can be shown to be effective at ensuring handpieces are clean, correctly maintained and ready for the final sterilisation process, unlikely using a manual or all in-one approach.

Allowing handpieces to 'dry out', an occurrence that is likely if hot air drying is used after the cleaning process, can result in damage to the delicate 'o' rings and seals. As such, these delicate components should be lubricated immediately after the internal cleaning process has finished to prevent any risk of this.

"Using spray oil to lubricate internal mechanisms can cause more harm than good"

However, simply using a spray can of oil to lubricate the internal mechanisms can cause more harm than good, especially if any moisture remains inside the handpiece. To avoid the risk of emulsification and over-oiling (excess oil can prevent sterilisation and cause damage to the autoclave), a dedicated system that uses compressed air to purge any moisture before dispensing a measured dose of the right amount of lubricating oil is recommended.

Only at this point should a handpiece be sterilised using an appropriate autoclave that has the necessary technology – validated vacuum cycle – that ensures the removal of all air from within the instrument thus facilitating the ideal conditions to subsequently effect sterilisation.

Even with the advent of new guidance, there remain different methods of achieving compliance and in the face of less than clear guidelines from some manufacturers, practice teams often remain unsure of the best equipment and methods for maintaining handpiece performance. Staff turnover, use of incorrect products, and a lack of training and time are the most common contributors to the downfall of the maintenance process.

Using a staged procedure for cleaning, lubricating and sterilising of handpieces takes little longer than an all-in-one machine, but gives the added peace of mind that handpieces are being correctly dealt with at every stage of the operation. Of course time is money, but handpieces also come at a cost and taking care of these most precious instruments and prioritising the safety of patients is far more valuable than a few moments of saved time, especially if cleaning processes are inadequate and need to be repeated. ■

More information on handpiece cleaning and care is available from Eschmann by calling 01903 875787, or by visiting www.eschmann.co.uk

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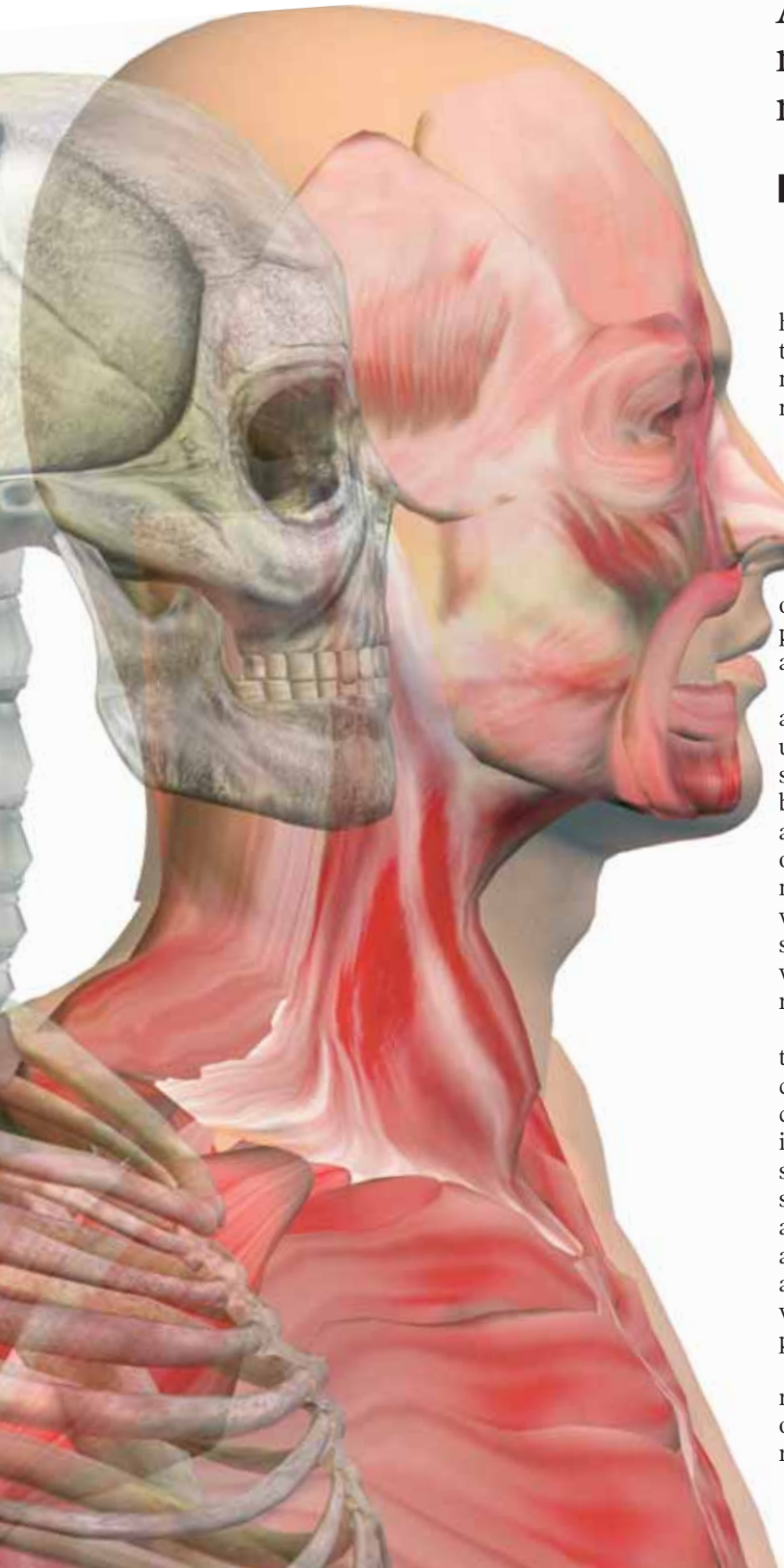
Taking the long route

An alternative approach to reconstructing the severely resorbed maxilla, by Allan Pirie



The success of conventional dental implant therapy is well documented and has, in many cases, removed the requirement to prepare natural teeth, or provide removable prostheses.

Treatment success depends on many factors including the quantity and quality of available bone. Local quantitative deficiencies can arise due to a variety of factors including infection, periodontal disease, trauma and difficult extractions.

More generalised loss of the alveolar bone in either arch is usually associated with long standing tooth loss which can be compounded by wearing a denture against a natural opposing dentition. In the maxilla, a typical presentation would be large pneumatised sinuses and a thin premaxilla with the associated 'flabby ridge'.

Various bone augmentation techniques have been described to correct the bone deficiencies in proposed implant sites. These include sinus lifts, block grafts, ridge splits, distraction osteogenesis and local guided bone regeneration. While these approaches are useful in improving bone volume, they are not without problems.

In the case of the severely resorbed maxilla, the quantity of donor bone required to restore lost tissue may necessitate ileac crest grafting, with or without a Le Fort 1 procedure. These surgeries can have complications, with Joshi and Kostakis[1] reporting that 13 per cent of patients have gait disturbance six weeks post-operatively, and 30 per cent are still in pain at 16 weeks. Extra-oral bone grafting also means a stay in hospital with associated charges.

At our clinic, patients presenting with an extremely resorbed maxilla were typically treated with bilateral lateral window sinus lifts and bilateral block grafts to the premaxilla. A graft placed in a severely pneumatised sinus can take six to eight months to ossify, regardless of the biomaterial used. The blocks for the premaxilla were usually harvested from the external oblique ridge or ramus of the mandible and secured with bone screws.

Only after integration of these grafts could the conventional implant placement begin, and these in turn were left to osseointegrate for 10-16 weeks prior to the reconstructive phase. This can easily take an additional two to three months depending on appointment schedules and laboratory timings. As a result, the patient is often under treatment for 12 months or more to achieve the desired prosthetic outcome. For many weeks during this treatment, the patient is unable

Continued »

Fig 1

A stereolithographic model manufactured using a CADCAM design process from a CT scan of the maxilla and zygomatic arches

Fig 2

A 50mm zygomatic implant being inserted from the palatal aspect of the residual ridge in the premolar/ molar region through the sinus to engage in the body of the zygomatic bone

Fig 3

Pick up copings attaches to abutments, and rubber dam cut to protect incision line and sutures

Fig 4

Access holes on full denture drilled to accept pick up copings

Fig 5

Full upper denture with copings picked up in cold cure

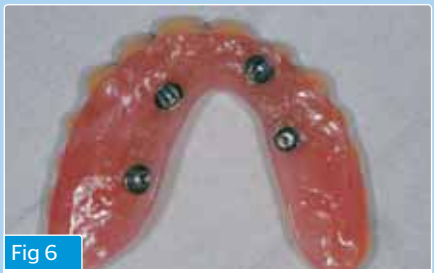


Fig 6

Fitting surface of reduced immediate acrylic bridge

Continued »

to wear their upper denture.

In 2010, we started to offer treatment with zygomatic implants using an immediate loading protocol. This was planned in conjunction with Dr Guy McLellan (BDS FDS RCS [Eng] MBBS [Lond]) who has treated over 70 patients with zygomatic implants following his training with Chantel Malvez of Belgium, one of the world authorities in these techniques.

The zygomatic protocol involves placing long implants with the tip engaged into the infero-medial aspect of the zygomatic arch, and the head emerging medial to the residual alveolar ridge in the premolar region. These can be used in conjunction with conventional root form implants if suitable bone volumes exist elsewhere. However, it is possible to place two zygomatic implants bilaterally without any other support (the Quad Zygoma technique). The integration success rates of these implants is high, at 97. 4 per cent[2], as is the patient satisfaction[3].

The clinical and radiographic planning for both approaches are similar. It is over-simplistic to compare them on paper, but Table 1 illustrates some of the main points.

The following narrative is based on the experience in our clinic with four cases reviewed 18-24 months post-treatment. All patients had extreme resorption of the maxilla, including some in the premaxilla, which precluded the more conservative 'All-on-4' technique. All were offered the choice of treatment, and the main reasons given by the patients for choosing the zygomatic approach were:

1. No time without teeth
2. A fixed set of teeth provided after one surgery.

Method – planning

Patients who were referred for implant-retained maxillary prostheses were subject to the usual medical and dental history checks and questioned as to their treatment objectives.

Table 1

	CONVENTIONAL APPROACH	ZYGOMATIC APPROACH
Radiographic planning	OPG, CT Scan	OPG, CT Scan
No. of surgeries	Multiple	Single
Loading	Usually delayed	Immediate
Time without prosthesis	Approx 10 days after each surgical stage	None
Implant prosthesis construction	Various techniques, all metal-based frameworks. Acrylic or porcelain teeth	Initially acrylic only, can be replaced with metal-based frames
Tongue space	Maximised	Slightly constricted
Successful osseointegration	98 per cent	97.4 per cent
Overall treatment time	12-14 months	Four to six weeks

It is worth noting at this stage that patients with a complicated medical history may not be suitable for major grafting or general anaesthetic. The zygomatic approach involves neither.

As with all cases the appropriate diagnostic stages were followed, including study casts and relevant imaging. Clinical assessment includes evaluating the loads that will be placed on the prosthesis i.e. is the patient a bruxist?, or is there a lack of posterior support which will overload the anterior segment of the prosthesis? Patients were counselled as to the options to restore their maxillae and those who chose fixed options were advised on the details of conventional versus zygomatic implant treatment.

Those who chose the zygomatic option had a Cone Beam CT scan carried out, but with the field of view adjusted to include the zygomatic arches. From this data a stereolithographic resin model of the maxilla and associated zygomas is manufactured (*Figure 1*). This process, which is used in the prototyping industry, allows one-off models to be constructed. From these,

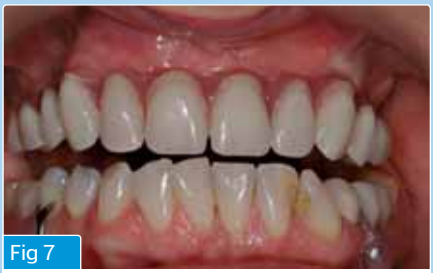


Fig 7
Retracted view. The fitting surface may need eased to facilitate cleaning

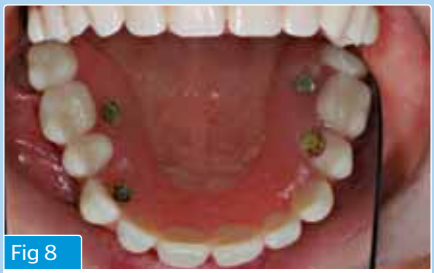


Fig 8
Occlusal view

Fig 9
At six week review, healthy gingivae around the abutment

implant lengths, positions, numbers and angles can be calculated.

It is common to place root form implants in the premaxilla in conjunction with zygomatic implants if there are any suitable sites. This aids bio-mechanical stability by decreasing the cantilever effect, but is not essential because, as mentioned above, two zygomatic implants can be placed on each side (Quad technique).

Pre-surgery prosthetics

The prosthodontic phase of treatment is started well in advance of the surgery with the conventional construction of a full upper denture. The advantage of this is that the patient can evaluate the aesthetics before fitting. Once all the technical and aesthetic parameters have been satisfied, the full upper is processed into acrylic in the usual way.

It is important that the full palate be retained at this stage, but labial and buccal flanges should be reduced to the absolute minimum. Lip and cheek support will eventually come from the teeth of the implant supported prosthesis, not flange acrylic. The final denture is checked for fit prior to surgery and the occlusion registered in rigid registration silicone.

Surgery

These cases are long procedures and are best done under conscious sedation. We work with a consultant anaesthetist experienced in the use of IV propafol who meets the patient prior to surgery for assessment. On the day of surgery, we like to start at 8.30am and the patient is sedated and infiltrated with local anaesthetic.

Table 2

PATIENT NUMBER	IMPLANT DESIGN	SURGICAL COMPLICATIONS	PROSTHETIC COMPLICATIONS	SOLUTION
1 (female, 74)	Quad zygoma	None	Tooth fractured off bridge	Repair, adjust occlusion
2 (male, 68)	2 zygomatic, 2 root form	None	Bridge baseplate fractured	Chrome cobalt baseplate provided
3 (male, 73)	2 zygomatic, 2 root form	None	Bridge baseplate fracture	Titanium framework.
4 (female, 49)	2 zygomatic, 2 root form	None	None	None

Full thickness mucoperiosteal flaps are raised to access the underlying bone of the edentulous maxilla, but are extended superiorly and laterally to expose the zygomatic arches. If conventional implants are also being used these are placed first, and then site preparation commences for the zygomatic implants just palatal to the edentulous ridge in the premolar area.

The osteotomy is developed laterally and superiorly, and a window is made in the sinus wall to track implant progress and ensure the correct path is followed, as per planning on the stereolithographic model.

Finally, the implant site is prepared into the inferior aspect of the zygoma and this length measured and checked against the planning. These implants measure 35-57.5mm and this gives an idea how awkward site preparation can be especially in a small mouth *(Fig 2)*. The implants are inserted and usually achieve a very high primary stability, in excess of 60NCm.

These implants have an external hexagon connection and so the degree of rotation must be carefully controlled to accept the abutments which are then attached. Usually no grafting is required, and the flaps are repositioned around the abutments.

Post-surgery prosthetics

The finished prosthesis is then offered up to the maxilla and relieved over the abutments and any irregular mucosa until it fits the palate. The position of the abutments is marked in the fitting surface with Fit Checker silicone or equivalent.

A generous hole is prepared from the fitting surface through to the polished surface to accommodate the pick up copings. These are then attached to the abutments with the prosthesis out of the mouth and this is again tried for fit and adjusted. This process is repeated until there is good contact with the palatal mucosa with a passive fit around the copings.

These copings usually protrude into the tongue space by several millimetres at this stage, and will often prevent closure of the mandible *(Fig 4)*. They must be shortened until the occlusion can be verified in the occlusal registration taken pre-operatively. When these criteria are satisfied, i.e. good fit against the palate, passive fit around the copings and accurate occlusion it is time to pick up the copings with cold cure.

The screw access holes in the copings must be protected with cotton wool or wax to prevent the pick up material blocking them. We use Ufi Gel Hard in the cartridge system from Voco *(Fig 5)*, as this material bonds well to the acrylic base and has a setting temperature of about 38^{C}.

Unfortunately it takes about seven minutes to set completely, but after this the screws that hold the copings to the abutments can be undone and kept aside while the

"These are long cases and best done under sedation"

Allan Pirie

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Fig 10

The verification jig on the soft tissue model. This confirms the accuracy of the impression, and must demonstrate passive fit

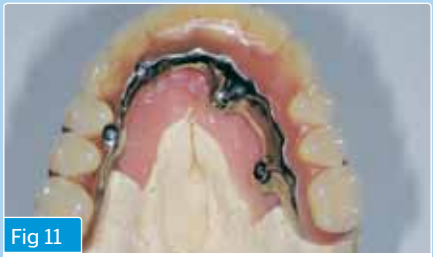

Fig 11

Occlusal view of the final restoration with a screw retained CAD-CAM milled titanium framework

Fig 12

The highly polished fitting surface allows for easier cleaning

Continued »

prosthesis goes to the lab for finishing.

The lab should remove as much of the palate as possible compatible with the strength of the acrylic *(Fig 6)*. The distal cantilever, measured from the middle of the most distal abutment, should be reduced as much as possible, and any excess height of metal pick-up coping in the palate is reduced for patient comfort. The buccal and labial flanges are reduced to aid in the creation of a convex fitting surface which will then have grooves cut mesial and distal to each abutment to facilitate cleaning with a water jet system and interdental brushes.

Once polished, the prosthesis is returned to the practice for fixing using the screws which are torqued to 15NCm and protected with PTFE tape and temporary inlay material *(Figs 7 and 8)*. Occlusal adjustments should be minimal, and the patient can be discharged with post-operative instructions and medication. These instructions include adhering to a very soft diet, which essentially means soup, scrambled eggs, soft fish and everything else through a liquidiser. The post operative medication includes painkillers, antibiotics and oral steroids (dexamethosone) to help reduce swelling.

Follow-up

The patient should be reviewed after seven to 10 days, but the prosthesis must not be removed until six weeks have elapsed *(Fig 9)*. At that time, the material occluding the screw holes can be removed to allow the bridge to be unscrewed. Any remaining sutures can be removed, and the fitting surface cleaned and adjusted where required. It is important to check that the patient can clean the fitting surface well, and this requires a combination of manual dexterity, appropriate cleaning aids and correct design.

Final bridge

After approximately six months of healing the impressions for the final prosthesis can be taken. A special tray is constructed to pick up transfer copings in the usual way, and a verification jig made on the resultant model. This verification jig *(Fig 10)* is a mandatory stage prior to the CAD-CAM design and manufacture of the milled titanium framework *(Figs 11 and 12)*. The immediate prosthesis is removed and replaced at each visit meaning no time without teeth.

Maintenance

The prosthesis must be designed in such a way as to facilitate easy homecare. This includes a convex fitting surface and grooves mesial and distal to each abutment to guide the interdental brushes. The correct diameter should push through from buccal to palatal with a little resistance. The use of a water jet is recommended.

Complications

In the four patients that we treated in 2010, there have been no surgical complications. This agrees with Malevez[4]. All patients are reviewed annually, and the bridges removed for inspection. All implants remain integrated and symptom free.

There have been some prosthetic complications, as illustrated in Table 2. These have required some chairside or laboratory repairs to acrylic, or in two cases replacement prosthesis with chrome cobalt or titanium reinforcement.

Conclusion

No technique should be seen as the ideal for all patients, but the foregoing does offer many patients the opportunity to get on with their lives with the minimum of disruption and without the social compromise that a poorly-retained full upper denture provides. One of the most important features of implant treatment to patients is the lack of inconvenience, with all that that implies.

The zygomatic approach avoids grafting and delivers a fixed bridge with immediate loading. There is no hospital stay, and the technique may be suitable for many medically-compromised patients. Having carried out many full arch reconstructions based on conventional implants, we can certainly see the benefits for selected patients in this protocol. The prosthetic success with an all acrylic bridge will be affected if the patient is a bruxist with an opposing natural dentition, or if there is a lack of posterior teeth in the mandible. ■

Allan Pirie graduated from Glasgow in 1981 and completed his MSc in Implant Dentistry from Warwick in 2006. He works at Clifton Dental Clinic spending most of his time with implant dentistry.

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LEADING REGENERATION

There are several ways to assess alveolar ridge dimensions and bone quality, but which is best? Dr Tariq Ali discusses the options

Mapping out the ridge

As with most fields of clinical practice, a high degree of planning is required in implant therapy. As part of the preoperative assessment, the implant dentist will assess the alveolar ridge and in particular, obtain the alveolar ridge dimensions, bone quality and proximity to any anatomical structures to ensure safe implant placement and predictable results.

Along with visual examination and palpation of the ridge, there are a number of ways in which to determine the bone available at the implant site. Certainly study models will provide the implant surgeon with an idea of the ridge morphology and can be used as a guide highlighting any deficiencies which may be present. Radiographic examination is essential and is the most appropriate method of assessment.

This article will look at the various methods used in implant dentistry to fully assess the bone at the implant site and the indications for each.

Direct measurements

Often, the first assessment will be a straightforward visual examination and palpation of the alveolar ridge. This can be used as a guide to the shape of the alveolar bone. However, one must show caution due to the varying thickness of the gingival tissues. In a patient with a thick soft tissue biotype, it can be difficult to correctly assess the underlying hard tissue as the thick tissue may mask the true ridge form.

A commonly used technique is ridge mapping, which directly measures the width of the alveolar bone at the implant site. This method was originally proposed as a way of avoiding conventional CT scanning with its inherent increased radiation exposure and cost to the patient. In ridge mapping, measuring calipers are used which penetrate the anaesthetised soft tissues down to the bone on the buccal and lingual aspects of the ridge.

Measurements are taken at various predetermined points (normally 3mm, 6mm and 9mm from the crest of the ridge) and then transferred to a split cast (Fig 1). The implant surgeon can therefore, visualise the thickness and profile of the bony ridge and plan accordingly. This is certainly a convenient method prior to raising any mucoperiosteal flap, however, it does tend to be inaccurate[1]. This is due to a discrepancy when using the measuring calipers.

The results are operator dependent and vary according to the amount of pressure applied with the calipers when taking the measurements. It is wise to be cautious with ridge mapping and to use it only as a guide to the ridge morphology, which can then be substantiated by other methods.

Conventional radiographic imaging

In dentistry, there are a wide variety of radiographic views available to assess the bone at the implant site. However,

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"Often, the first assessment will be a straightforward visual examination"

Fig 1

Ridge mapping split cast showing ridge morphology

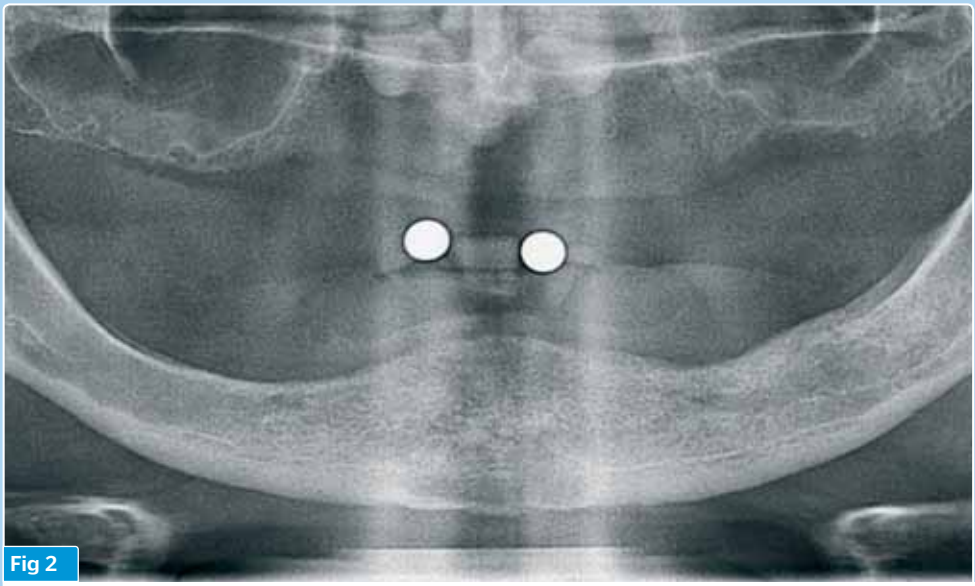

Fig 2
OPG with ball bearing to calibrate dimensions

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Continued »

it is the responsibility of the individual clinician to determine the most suitable view[2]. Periapical and panoramic radiographs are easily accessible in dental practice and they are commonly used in implantology.

The height of the ridge and the relation of the future implant to the surrounding teeth can be assessed on the periapical view. The accuracy of this view is dependent on positioning, by obtaining a true parallel view. The main problem is the limited field of view. A more complete picture can be obtained when it is used in combination with a panoramic view.

The panoramic view gives an overview of both arches, showing generalised bone levels and the position of anatomical structures such as the IAC and maxillary sinuses. As the panoramic image is subjected to magnification, it is essential to use a radiographic measure such as a ball bearing of known size (Fig 2). The operator can then calibrate the measurements to obtain an accurate result.

As the views are two dimensional, they do not give an indication of the density of bone or ridge morphology. Although uncommonly used, other views that are available include a lateral cephalometric view which, when used in a mandible with considerable bone atrophy, will show bone width and form at the midline. This is valuable when placing implants close to the midline for a mandibular overdenture. Occlusal views are possible in the mandible but not in the maxilla due to superimposition – and even then they tend to show the maximum width of bone, not the actual alveolar ridge[2].

"Careful thought is required when prescribing a CT scan"

CT scans

Dental CT scanning is now widely available to implant practitioners, whether this is in their own practice or on referral. Modern Cone Beam CT scanners provide accurate, three-dimensional views of the implant site without the radiation exposure normally associated with conventional CT scanning.

Cone beam CT is formatted by proprietary software to provide accurate images such as cross sectional views which accurately shows the bony profile of the alveolar process and position of anatomical structures such as the mental foramen and maxillary sinus. The images of the bony ridge can be viewed from different angles and manipulated to provide a complete picture.

Many studies are available which show that CT scans are the most accurate method to assess the bone dimension and morphology[2]. Another feature of CT scanning is the ability to measure bone density (Hounsfield Units). With a measure of bone density the implant surgeon is informed about the type of bone and so the likely surgical technique that will be needed to obtain primary stability and future success of the implant.

It is important to understand the indications for a CT scan to comply with the principles of ALARA. Certainly CT scanning is useful, but it should only be used when the benefits outweigh any risks with respect to radiation exposure. It is known that

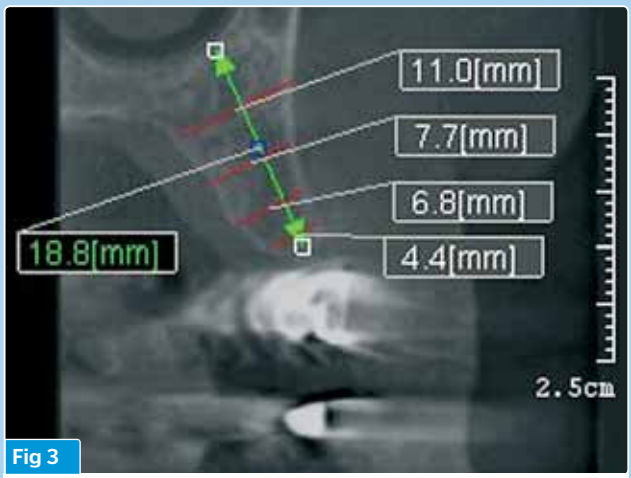

Fig 3
CT scan cross-section of ridge

dental radiography is associated with a relatively low mortality risk, with CT having the highest risk of 1:40000[3]. As such, it should only be used when another view will not suffice.

Modern machinery means it is possible to reduce the field of view, thereby, reducing the radiation dosage. A CT scan is indicated when more information is needed than that obtained from ridge mapping and conventional radiographs. Cases where the implant site is close to the IAC, mental foramen, maxillary sinuses, areas with defects and mandibular midline all are indications for CT scanning.

Careful thought is required when prescribing a CT scan, as appropriate radiographic markers such as radiographic teeth are required to locate the future tooth position to the implant site (Fig 3). A common problem is scatter from metal-based restorations which distorts the image.

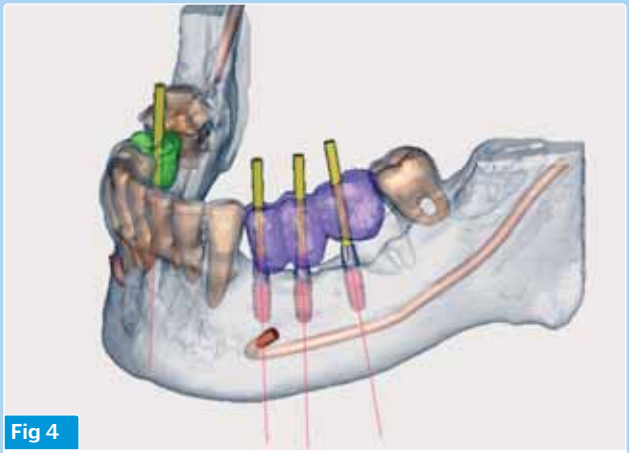

Fig 4
Interactive planning on CT software

A development of CT scanning is to use software to interactively plan the implant placement and transfer this to the surgical site (Fig 4). Surgical guides can be fabricated according to the virtual planning which is then used at the time of surgery to locate the implant sites and aid in implant placement[4].

Pre-operative assessment is one of the keys to successful implant therapy. By determining the exact nature of the alveolar bone, the implant dentist is able to prescribe the correct treatment, from any augmentation that may be needed to the size and site of the actual implant placement. It is the responsibility of the treating clinician to determine the best methods to use on a case-by-case basis, however it is likely that a combination of the methods previously mentioned will be used to assess the alveolar ridge. ■

ABOUT THE AUTHOR

Dr Tariq Ali BDS (Glas) DipImpDent RCS (Eng) graduated from Glasgow University in 1998. He has been involved in implant dentistry for the past eight years and has trained at the Royal College of Surgeons England attaining the FGDP Diploma in Implant Dentistry. He is involved in mentoring and accepts referrals for implants at his practice in Bishopbriggs, Glasgow (0141 762 3954).

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The last few years have seen the rapid growth of digital dentistry. In the coming months and years, this is set to become an explosion. The 'tipping point' is almost upon us, writes James Duvall of Ceramtech Dental Laboratories

The digital revolution

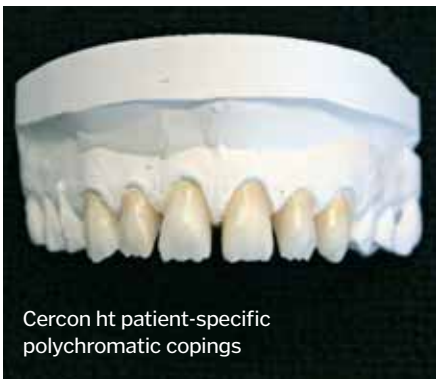
The last 18 months have seen my dental laboratory invest in and embrace CAD/CAM and other digital technology in an effort to improve the business. The start point for this move was the need to streamline some of our working procedures by using a scanner and CAD software. This would enable us to outsource some of our production to a centralised manufacturing centre (Compartis offered by DeguDent based in Hanau, Germany), while keeping control of the design within the laboratory.

In the process of looking for a scanner, a complete second-hand Cercon Brain System was offered to me. This had many benefits, partly cost, but mostly it gave me the opportunity to manufacture in-house, to have complete control over the production of frameworks and gave us the ability to offer customised solutions that a manufacturing centre could not.

Within a few weeks of producing our own zirconia copings, it became apparent that this material would provide an excellent solution for implant prosthetic substructures. The fits were excellent and there was complete consistency in terms of accuracy, production time and cost.

The benefits of using zirconia include minimal veneering and lack of chipping, leading to increased reliability and longevity of the restoration. This meant predictable results for both the laboratory and the dental clinic.

We also found that by using zirconia on implant restorations, we could reduce fees, compared with palladium-based alloys, to our clients by approximately 10 per cent. There was also the added benefit of fixing costs as opposed to being at the mercy of fluctuating alloy prices. We effectively increased our own margin along with other general cost savings due to becoming more efficient.



Cercon ht patient-specific polychromatic copings

Another reason for selecting the Cercon system was the then up-and-coming option to produce patient-specific implant abutments for the Ankylos system. We restore almost 1,000 units on these implants annually, so it made a lot of sense to be able to provide this restorative option in-house. We are now a UK scan and design centre for Compartis with the option of using the new Cercon ht material for implant abutments in conjunction with all ceramic restorations.

The latest addition to the Cercon range of materials is Cercon ht. This is highly translucent zirconia with the same physical properties of the traditional Cercon zirconia that we are all familiar with. Cercon ht can be used for custom implant abutments, as a framework material in two standard colours (light and medium) and patient-specific polychromatic frameworks giving the best base for aesthetic ceramic veneering.

The material can also be used for monolithic crowns and bridges in the posterior region with ultra-conservative tooth reduction, making it a highly effective aesthetic replacement for gold shell crowns and aesthetic all-ceramic restorations where space is compromised.

Cercon ht can also be safely used in bruxism cases and has excellent wear characteristics on natural opposing dentition, even when adjustment has been made to the material intra-orally (University of Regensburg 2011). Additional material options include PMMA for long-term provisionals, milling wax and SLM Laser sintered CoCr for PFM substructures.

With the up-and-coming option to receive STL files from clinic-based intra-oral scanners and the increasing availability of digitally-produced models, the modern dental professional has direct access to a large range of dental products, services and restorative techniques to suit every situation. For complex cases, there is also the possibility to communicate and review case data before either the laboratory or the clinic commit to a treatment plan or production.

To conclude, the incorporation of digital dentistry into the laboratory has radically changed the way we run our business. It has changed production methods and the materials used and allowed us to offer a far greater range of products and services.

Finally, my relationships with my clients have improved as the level and quality of communication has improved. These relationships are, of course, paramount and will only get stronger going forward. ■

James Duvall, Ceramtech Ltd, 01245 461 845, ceramtech@btconnect.com

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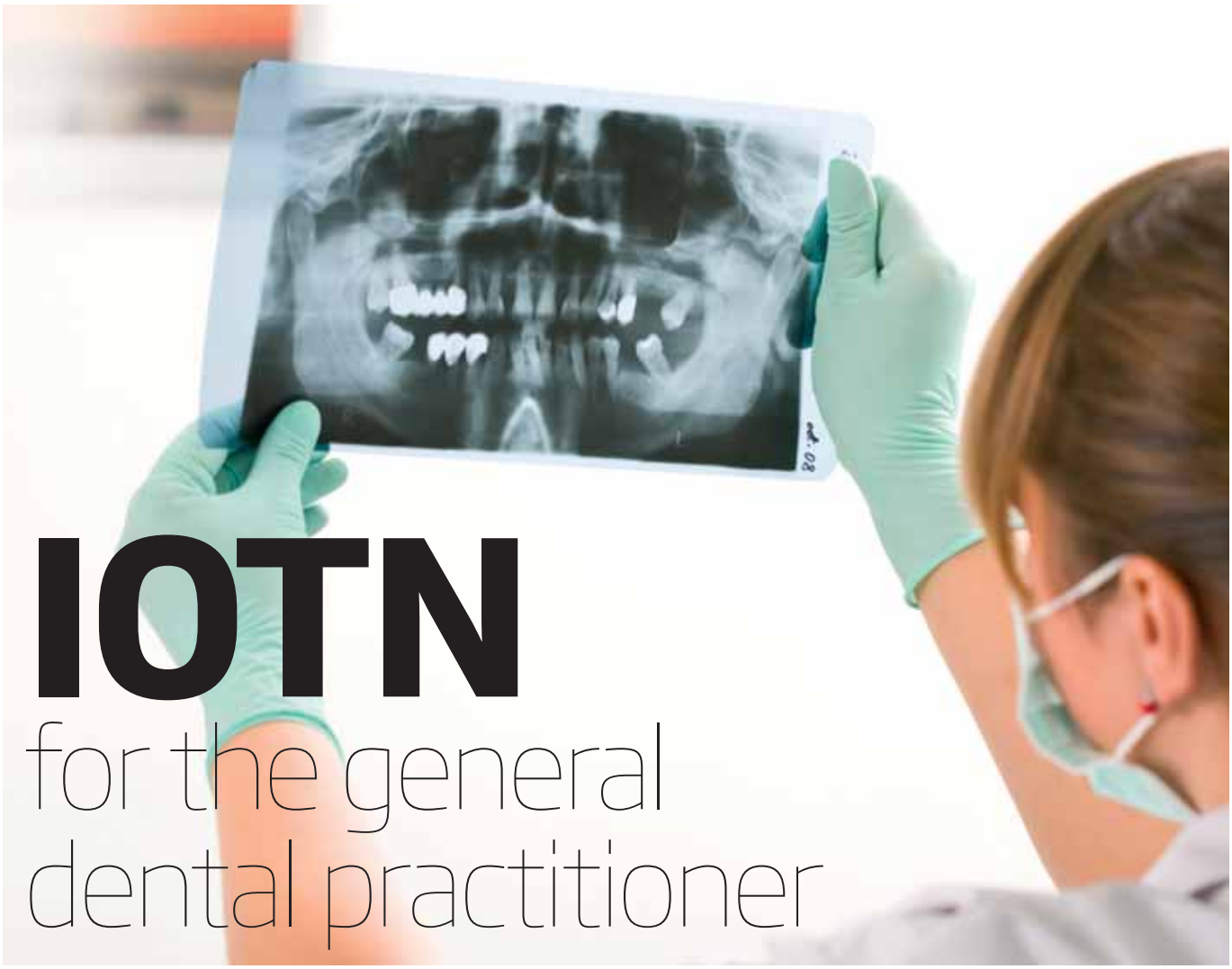

IOTN
for the general dental practitioner

Dental practitioners should be fully au fait with the Index of Orthodontic Treatment Needs when assessing patients' needs. Paul Mooney and Toby Gillgrass explain how the system works

A recent amendment in the Statement of Dental Remuneration has stipulated that the guidance Index of Orthodontic Treatment Needs (IOTN) must be used when providing orthodontic treatment.

A good knowledge and understanding of the IOTN can aid practitioners in assessing patients' dental health and aesthetic needs for orthodontic treatment and providing patients with advice.

Orthodontic referrals should be timely and informative to assist orthodontists in providing patients with the best possible care and a successful treatment outcome. This article describes IOTN and discusses its use for GDPs, explaining what will and what is unlikely to receive orthodontic treatment under the Statement of Dental Remuneration.

Clinical relevance

GDPs should have knowledge of the reasons for orthodontic referral and what is likely to be accepted for treatment to avoid untimely or inappropriate orthodontic referrals that result in inevitable delays within the referral system and place unnecessary strain on NHS resources.

Within the general dental practice services, it is important that dentists are aware of the possible need for orthodontic treatment in patients. Orthodontic referrals need to be timed correctly to allow orthodontists to work efficiently without the burden of late or inappropriate referrals from GDPs[1]. Poor referrals from GDPs can be frustrating for orthodontists and patients alike and can be a burden on public resources.

IOTN

The NHS Boards and Practitioner Services in Scotland advised that from 1 October 2011, as part of the Action Plan for Improving Oral Health and Improving and Modernising NHS Dental Services in Scotland[2], the Index of Orthodontic Treatment Needs is to be utilised as a way of assessing whether it is appropriate to provide orthodontic

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treatment to patients under general dental services (GDS) agreements. It is therefore important that GDPs familiarise themselves with this index.

IOTN consists of two components: The Dental Health Component (DHC) and the Aesthetic Component (AC).

Dental Health Component (DHC)

This component assesses the long-term effect of different occlusal discrepancies on a patient's dental health by grading them in order of severity[3]. It was developed in Manchester (Brook and Shaw, 1989) and based on the index of treatment priority of the Swedish Dental Board and the Swedish Medical Board (Linder Aronson) developed in 1966 and intended to be a 'basic guide'[4] that required good clinical judgement on the part of the assessor[5].

The index can be used for resource allocation and also be used by clinicians to identify patients who may receive NHS treatment under the current remuneration.

The component focuses on the impact on health of a malocclusion and is divided into five grades. It is based on the worst feature of the patient's malocclusion. For each grade, a descriptor is added to explain what aspect of the malocclusion is its worst feature. For example, a patient with hypodontia who is missing more than one tooth in any quadrant (not including wisdom teeth) would be graded as a 5h.

MOCDO

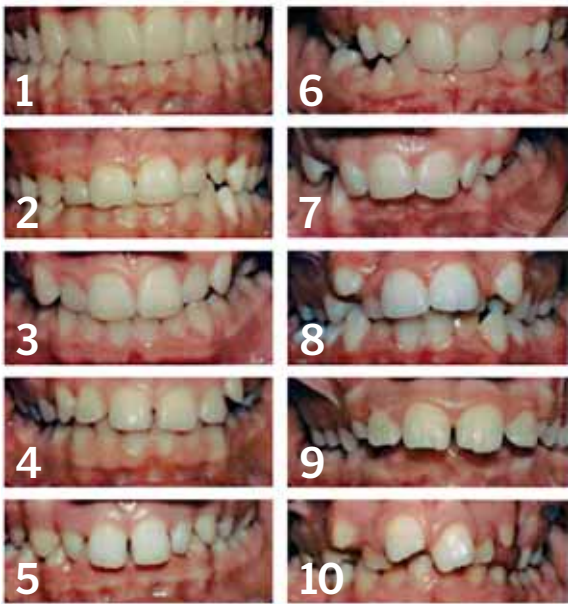
The acronym MOCDO can be used by practitioners to take a structured and reliable approach to assessing the DHC. Features are assessed in the hierarchical scale starting with 'Missing' teeth and ending with 'Overbite/openbite' (see Table 1).

Under the GDS agreement, cut-off levels for orthodontic treatment can vary depending on the resources available and the particular needs and demands of individual populations. Since 1 October 2011, Amendment No. 121 to the State-

Table 1

FEATURES OF MALOCCLUSION THAT WILL RECEIVE NHS ORTHODONTIC TREATMENT ONCE REFERRED

Missing	Congenitally absent (except for 3rd molar) Hypodontia, impeded eruption of teeth (< 4mm) NB: extracted teeth are excluded when assessing a patient for missing teeth
Overjet	Overjet > 6mm, Reverse overjet > 3.5mm OR > 1mm but with recorded masticatory or speech difficulties
Crossbite	Anterior or posterior crossbites with > 2mm discrepancy between retruded contact position and intercuspal position and posterior crossbites with no functional occlusal contact in one or both buccal segments
Displacement of contact points	Contact point displacement > 4mm
Overbite/openbite	Increased and complete overbite with gingival or palatal trauma, lateral or anterior open bites > 4mm
	In addition to above: cleft lip and palate/cleft lip and other craniofacial anomalies, presence of supernumerary teeth, submerged deciduous teeth.



Right: Figure 1 – Evans and Shaw WC 1987. A Preliminary evaluation of an illustrated scale for rating dental attractiveness European Journal of Orthodontics 9:314-318

ment of Dental Remuneration states that, under the NHS: Grade 1 will not be available; Grade 2 will not normally be available; Grade 3 will be judged on a case-by-case basis and, depending on the appearance of the teeth, may be available; Grade 4 and 5 will be considered for orthodontic treatment.

According to the Child Dental Health Survey (United Kingdom) carried out in 2003, 26 per cent of 12 year olds scored as DHC grade 4 and 5 and should therefore be considered for orthodontic treatment under the NHS under this agreement[6], providing that they maintain a good standard of oral hygiene.

Aesthetic Component (AC)

The Aesthetic Component of IOTN assesses the aesthetic impairment of the malocclusion and originated in Manchester (Evans and Shaw, 1987).

It is based on SCAN (Standardised Continuum of Aesthetic Need), a scale which was constructed by a panel of lay-judges who over a five-day period rated dental photographs of 1,000 12 year olds using a 10cm visual analogy scale, with 'very attractive' and 'very unattractive' at each opposing end of the scale[7].

From this, a sub-sample of 10 cases were chosen based on the results to represent the range of dental attractiveness. These cases provide the 10 photographs which are currently used to rate on a scale from the most *(photograph 1)* to the least *(photograph 10)* aesthetically pleasing *(Figure 1)* in the AC. The photographs are all anterior intra-oral views and the patient should be viewed by the assessor in the same anterior view.

The assessment should be made based on the patient's dental attractiveness at that exact point in time and no attempt should be made to anticipate the patient's possible future appearance. Furthermore, appearance of unsightly restorations, broken teeth and gingival problems should not be taken into account during this assessment as it is only an assessment of alignment.

The component may also be useful when consulting patients prior to treatment, although it should be remembered that it is the clinician who scores the photographs, not the patients. It is important to bear in

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mind that these photographs are to illustrate the severity of the aesthetic component and are not necessarily for the clinician to match features of the patient's malocclusion specifically to one of the photographs.

For example, none of the photographs show a patient with a Class 3 malocclusion, therefore the operator should use the photographs to rank the severity of the aesthetic impairment.

Conclusion

For the benefit of both the orthodontist and the patient, it is imperative that GDPs are aware of the reasons for orthodontic referral and referrals are timely.

The IOTN provides a fast, useful screening tool to aid GDPs in determining a patient's need for orthodontic treatment[8]. The index ensures that orthodontic treatment under the NHS is allocated to those who would benefit from treatment the most. ■

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ABOUT THE AUTHORS

Paul Mooney BDS MFDS RCPS (Glas) qualified from the University of Glasgow and has previously worked as a senior house officer in Glasgow Dental Hospital, as well as working as an associate in Greater Glasgow and Clyde. He is currently working as a senior house officer in oral and maxillofacial surgery at the Leeds General Infirmary and has a keen interest in orthodontics.

Toby Gillgrass is a consultant specialising in cleft and craniofacial anomalies, attached to the cleft and craniofacial team in Glasgow.

He was previously programme director for orthodontic training in the south east of Scotland and a trainer on the national indices calibration course.

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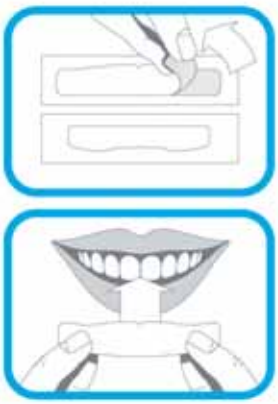

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The new legalities of **tooth whitening**

Dentists should observe the new European law, says Payman Langroudi

A change in the tooth whitening legislations is among us, as the European Council Directive 2011/84/EU has imposed an obligation on the UK Government to amend its law on tooth whitening.

From 31 October 2012, dentists throughout the UK will finally be able to legally supply tooth whitening products, which release or contain up to 6 per cent hydrogen peroxide (18 per cent carbamide peroxide). This is providing a dentist has examined the patient, and the first treatment has been performed by the dentist, or under his/her direct supervision. The Cosmetic Products (Safety) (Amendment) Regulations 2012 (The 'Regulations') will now regulate tooth whitening[1].

This change means that tooth whitening is finally going to be legal at a high enough concentration of hydrogen peroxide to actually whiten teeth. It has taken 12 years to get the law changed and, finally, dentists in Europe can catch up with colleagues all over the world to provide the most conservative and safest cosmetic treatment of them all, without constantly looking over their shoulder in fear of prosecution by Trading Standards[2].

After this date, it will be illegal to use tooth whitening products that contain or release more than 6 per cent hydrogen peroxide (18 per cent carbamide peroxide). Even if products containing or releasing more than 6 per cent hydrogen peroxide (18 per cent carbamide peroxide) are sold to you as a medical device, please be aware that all teeth whitening products fall under the Cosmetics Directive and not the Medical Devices Directive.

ABOUT THE AUTHOR

Payman Langroudi is clinical director at Enlighten Smiles, and has developed several whitening systems being used by dentists all over the world. His early work was In power whitening. Twitter: @EnlightenSmiles and @DrPay, Facebook: Enlighten.

Some may argue that 6 per cent hydrogen peroxide (18 per cent carbamide peroxide) is still too low to effectively whiten teeth. But I believe it should stop here. I am against dentists offering whitening at concentrations above 6 per cent.

European law

The new European law on teeth whitening is based mainly on safety research from the European SCCP (Scientific Committee on Consumer Protection) adopted during the plenary meeting of 28 March 2006. This may have been the most thorough examination of safety of teeth whiteners ever carried out and was intended, in the words of the committee, to be "a final and comprehensive safety evaluation of hydrogen peroxide in tooth whitening products".

Becoming UK law on 31 October, there are three key points:

1. every cycle of treatment should start at the dentist
2. the minimum age for teeth whitening procedures should be 18 years
3. the maximum concentration of hydrogen peroxide should not exceed 6 per cent.

It is important that the profession remembers that the vast majority of problems with power teeth whitening (containing more than 6 per cent hydrogen peroxide/18 per cent carbamide peroxide) centre around chemical burns and unrealistic expectations, where results are poor and do not last long. This is due, mainly, to dehydration. In short, in-office whitening, using higher concentrations of hydrogen peroxide in its current form, gives very few benefits and many risks to both patient and the dentist.

The profession will have no leg to stand on

Furthermore, if we continue to offer whitening at higher concentrations than 6 per cent hydrogen peroxide (18 per cent carbamide peroxide) after 31 October, not only will we be breaking the law, but we will also have no leg to stand on when challenging the beauticians who are illegally practising dentistry by offering tooth whitening treatments.

As professionals, it is incumbent on us to put our patients' interests before our own to provide safe, effective and legal treatments. We should continue to research faster methods of true teeth whitening to satisfy the demand for 'instant results', while having the integrity to admit that power whitening, in its current form, is not the answer.

Have your say

Do you believe dentists should stop offering power whitening at concentrations above 6 per cent hydrogen peroxide? Join the debate on Twitter #legallywhite ■

For more information, contact Payman Langroudi at Enlighten Smiles on 020 7424 3270, or visit www.enlightensmiles.com

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BOC LIFELINE® emergency resuscitation equipment.

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BOC Healthcare can assist your dental practice with the provision of emergency resuscitation equipment.

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By Graeme Ramage from emergency care charity BASICS Scotland

Is your practice rescue ready?

Every dental practice has a duty of care to ensure they are 'rescue ready' to deal with a medical emergency should it happen within the practice.

A medical emergency could happen at any time and it is important that all members of the dental team know their role in the event of one occurring.

The Resuscitation Council (UK) published guidance on medical emergencies and resuscitation for dental practitioners and dental care professionals in general dental practice in 2006 and updated in February 2012.

In the General Dental Council's publication *Principles of dental team working* it states that all members of staff who might be involved in dealing with a medical emergency are trained and prepared to deal with such an emergency at any time.

Of the common medical emergencies encountered by staff, vasovagal syncope, or fainting, was most common, accounting for approximately 63 per cent. Angina accounted for around 12 per cent, hypoglycaemia 10 per cent, epileptic fit 10 per cent, choking 5 per cent, asthma 5 per cent, and cardiac arrest 0.3 per cent.

This study, carried out Girdler and Smith in 1999, showed that a cardiac arrest was an unlikely event to happen in general dental practice, however dental teams must be rescue ready to deal with such a catastrophic emergency should one occur.

Traditionally, basic CPR training has been the focus for general dental practitioner teams with emphasis on the performance of basic life support skills, but clearly training in medical emergencies, including the common ones listed above, should be included in any training carried out within general practice.

Regularly practising together in a simulated emergency situation is one way to engage all staff, not just the registered team members, to know their role if a patient collapses.

The Resuscitation Council (UK) guidelines provide recommendations concerning medical emergencies that may occur in dental practice. You can visit their website at www.resus.org

Some of the key recommendations in the guidance are that:

- all dental practitioners and dental care professionals should follow an 'ABCDE' approach when assessing an acutely sick patient
- specific emergency drugs and items of emergency medical equipment should be immediately available in every dental practice
- every clinical area should have immediate access to an automated external defibrillator
- dental teams should receive training in CPR, including basic airway management, and the use of an automated external defibrillator with annual updates
- regular simulated emergency scenarios should take place in the dental practice.

One of these key recommendations is that all dental practices should have immediate access to an automated external defibrillator (AED). AEDs are suitable for use in adults and children over eight years of age. Some AEDs can be modified with the use of paediatric pads for children younger than eight years.

AEDs are easy and safe to operate by all members of the dental team and can be deployed when a patient experiences a collapse, stops breathing normally and has no signs of life.

The provision of an AED enables all dental staff to attempt defibrillation safely after relatively little training. Early defibrillation is an important link in the patient's chain of survival and is now regarded as a part of basic life support.

Attaching an AED to the patients bare chest following a confirmed cardiac arrest is straightforward and safe to do so with the knowledge that the AED will only deliver a shock to the patient if their heart is in a cardiac arrest rhythm.

Defibrillators come in all shapes, sizes and colours and prices and purchase should be based on ease of use, the availability of pads and batteries and the length of warranty and battery life offered.

As part of the Pre-hospital Emergency Life Support Course provided by BASICS Scotland, the use of the AED is included as part of the simulated practice sessions looking at medical emergencies. ■

For further details, please visit www.basics-scotland.org.uk

Progressive smile design

A minimally invasive approach for GDPs, by Iain MacArthur

For more pictures, visit bit.ly/InmanAligner

Over the last 20 years or so classically perfect smile design using porcelain following golden proportion, gingival zeniths etc. had become the costly norm with preparation of valuable enamel in many cases.

We can now embrace naturally perfect smile design using simple orthodontic pre-alignment and non-invasive dentistry to allow for a progressive transformation controlled by patient choice and autonomy. Dental patients' perception of the aesthetic beauty of their smiles is changing and more patients are now choosing this alternative path.

Even in cases where veneers are the treatment of choice they can be provided with greatly reduced preparation on pre-aligned teeth to achieve much better longer-term outcomes.

One of my preferred systems is the Inman Aligner (see above). This innovative NiTi removable appliance is easy to use, quick, discreet and cost effective. Allied to non-invasive procedures such as whitening and resin edge bonding it allows the patient to control the progress of treatment as they see their smile developing.

Case selection is paramount. Accredited users have access to the tools, support and knowledge base to assess case suitability. The hands-on course teaches you how to use the Inman Aligner in general practice and introduces progressive smile design concepts. ■

ABOUT THE AUTHOR

Iain MacArthur BDS LLB is an accredited Inman Aligner instructor with an interest in minimally invasive dentistry. Contact Straight Talk Seminars on 0845 366 5477 or visit www.straight-talks.com to find out more. The 4th Scottish Hands On Inman Aligner Course is on 25 January 2013, in Glasgow.

New appointment at IndepenDent Care Plans

At IndepenDent Care Plans (ICP) we are experiencing a sustained period of growth in our business, working with more and more dental practices who want to introduce new dental plans to their patients or indeed switch from other providers where current service levels are not met. At a time of financial pressure on both dental practices and their patients, we are pleased to experience continued success in providing a service to dentists that helps increase additional regular income whilst providing their patients with a dental plan they can budget for.

As a result of our current growth, we are also bucking the trend of staff support levels by increasing our Business Development team to support practices introducing, converting and developing their patient dental plans.

Therefore we are delighted to announce that Wayne Mayhew has joined the IndepenDent team as our new Business Development Consultant, bringing with him a wealth of experience in both the Dental & Healthcare sectors.

Wayne is very experienced working with Dental practices and in particular with Dental Plans, having previously worked for Isoplan where he enjoyed developing fantastic and successful relationships with many Dental Practice teams.

Wayne will provide business development support and advice, including guidance on marketing, conversion management, banding rate assessment and team training needs, helping practices to implement and grow their patient plans.

Gary Moore, Business Development Manager for ICP said: "We feel Wayne is a great acquisition to the team and furthermore cements IndepenDent Care Plans growth in the market whilst providing Principal Dentists with a further option as their preferred Plan Provider".

indepenDent

Care Plans UK Ltd

Wayne Mayhew, Business Development Consultant

If you would like to find out more about IndepenDent, our plans and practice support available, or to request a Membership Information Pack, simply contact Wayne on 07780 467331 or at waynemayhew@ident.co.uk where he will be happy to arrange a consultation at your practice.

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Professional development too costly?


Tricia Halliday

Tax relief for training, or lack of it, has left many dental nurses feeling aggrieved. Tricia Halliday offers a key insight into the murky world of HMRC and some practical suggestions going forward

If you're a dental nurse, you might feel you're being unfairly treated by HM Revenue and Customs (HMRC) over tax relief for your training. I thought it might be useful to provide a bit of context, as well as some practical suggestions about what you can do.

The issue is currently what constitutes continuing professional training and how HMRC regards the acquiring of new skills.

The British Association of Dental Nurses has been lobbying HMRC over this issue because dental nurses are unhappy that the costs associated with continuing professional education may not qualify for tax relief. It's especially ironic because participation in such activities is often compulsory and failure to take part may lead to you losing your professional qualifications... and even your job.

The campaign goes on for HMRC to re-consider the question of tax relief on mandatory CPD/CPE for dental care professionals. What can you do in the short term?

The current position is that tax relief is only available for expenses incurred "wholly, exclusively and necessarily in the performance of the duties of employment". There's a dividing line drawn by the courts between preparation for performing duties of the employment, which may include attending educational courses, and actually performing those duties. Expenses of preparation are not deductible under Section 336 ITEPA 2003.

It is well established that employees such as dental nurses, hospital doctors and others involved in healthcare are not entitled to a deduction for the expenses incurred in continuing professional education and there are numerous test cases to that effect. For example, an NHS consultant was refused relief for the expenses of CPE necessary to maintain her professional qualification and a specialist registrar was refused relief for the expenses of taking professional examinations, even though it was a condition of his employment that he should do so.

Dental nurses face similar problems. Unless you are employed under a training contract, the costs of CPE may not qualify for tax relief. Whether employed or self-employed, acquiring new skills has never been allowable. HMRC consider acquiring a new skill to be a capital investment.

If you're caught in this Catch 22 situation, my advice is, seek specialist advice! Accountants will look at things such as contracts of employment, the expenses incurred and may advise an appeal would be worthwhile. These are taxing times for dental nurses, but professional help is at hand and can make a big difference. ■

Tricia Halliday is a Partner at Martin Aitken & Co. Tricia is contactable at ph@maco.co.uk by telephone on 0141 272 0000, or you can find out more about Martin Aitken & Co by looking at their website www.maco.co.uk

Advancing Implant Knowledge Through High Quality Courses



“ An excellent thorough grounding for any budding implantologists or experienced operators, with evidence-based references. The course is provided by two experienced and enthusiastic implantologists, in a first class facility.” KC Chan, Dental Practitioner, Glasgow

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Training is delivered via a network of regional and international teaching centres. Facilities are appropriate to the practice of implant dentistry, providing the highest quality teaching environment and standard of clinical training.

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This course is ideal for those practitioners who wish to incorporate implant treatment into their practice, to advance their implant knowledge or consolidate existing expertise, but who are unable to commit to a degree programme. This does not preclude the delegate from following the degree programme at a later date and credit will be given towards the University of Warwick MSc and diploma courses in Implant Dentistry. Both MSc and diploma are registerable with the GDC as additional professional qualifications.

Scottish tutors (Aberdeen) Jacqueline Fergus and George Glover both hold a Master of Science in Implant Dentistry and are experienced GIFT regional tutors and mentors running courses from their state of the art facility in Aberdeen.

GENERAL IMPLANT FORUM & TRAINING GIFT

For further information on Gift Continuum, visit www.gift.org.gg

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Dental Protection

Fair subscriptions

Scottish members of Dental Protection do not subsidise members in other parts of the UK, nor other parts of the world. Scottish members have a much better claims experience, and it is only right that Scottish dentists should see the benefit of this.

Also, in a big, financially strong organisation like Dental Protection there are more members to share central overheads – allowing each member to pay a smaller contribution and leaving more money with which to provide additional membership benefits.

So a full-time general dental practitioner in Scotland pays 37% (almost £900) less to be a member of Dental Protection than colleagues in the rest of the UK while enjoying loads of additional services like free CPD in a variety of forms for the whole dental team.

You can't say fairer than that.

For more information:

W: www.dentalprotection.org
T: 0845 718 7187
E: member.help@mps.org.uk

the **complete** package

Expertise and experience

A team of experts was fielded by The Dental Directory at the BDTA Dental Showcase, at ExCel London in October, to make sure it provided Premier League service to visitors to the event.

With a product range that stretches from hand instruments to CAD/CAM technology, The Dental Directory is also home to enormous knowledge and experience of just what dental practices need to run efficiently.

Its team was on hand to make sure that visitors could find out just what they wanted to know, whether it was about dental units, digital imaging systems or just the latest promotional offers.

For more information, contact The Dental Directory Equipment Department on 0800 585 585, or visit www.dental-directory.co.uk

A smarter future from Clark Dental

Delegates at this year's BDTA Dental Showcase were impressed by Clark Dental's latest range of dental units, from the leading manufactures A-dec and Stern Webber. These units are available to purchase outright, or through a rental offer, with six months' free rental, zero deposit, economic payments and a FREE UPGRADE after five years.

Clark Dental also demonstrated its portfolio of digital imaging systems. These include the portable NOMAD Pro hand-held X-ray, and the modular Schick Digital Imaging System that is now available with WiFi and the enhanced clarity of the Schick 33.

For more information, call Clark Dental on 01268 733 146, email info@clarkdental.co.uk or visit www.clarkdental.co.uk

Technological innovation

W&H were delighted to report a successful Showcase with new exciting and innovative products being launched.

W&H launched the exciting new range of Synea Fusion handpieces at this year's Dental Showcase. Many dental professionals took the opportunity of buying these new high-quality Synea Fusion handpieces at the amazing introductory offer of half the normal retail price.

The award winning innovative Proface caries detection system was also a popular exhibit which attracted a lot of interest throughout the exhibition.

As always, many attendees took the opportunity to visit the W&H stand to view the current decontamination equipment range and to discuss their requirements. There was interest in the full decontamination equipment range and especially the ThermoKlenz washer disinfector dryer. The new affordable rental scheme with monthly fee allowed customers to see how easy it can be to include HTM 01-05 compliant decontamination protocols within their budgets.

Call 01727 874990 or visit www.wh.com

SDI reacts to whitening law change

In Sept 2011, The Council of the European Union published an amendment to the existing Cosmetic directive, meaning:

- cosmetic tooth whitening products containing up to 0.1 per cent of hydrogen peroxide will continue to be freely available to consumers
- products containing between 0.1 per cent and 6 per cent of hydrogen peroxide will require a clinical examination and first treatment by a dental professional
- use of these products by persons younger than 18 years will not be allowed
- cosmetic tooth whitening products containing more than 6 per cent hydrogen peroxide will be prohibited.

These changes will apply from 31 October 2012.

Cosmetic range

From 31 October 2012, all tooth whitening products which fall under the Cosmetic regulations, will be permitted to contain from 0.1 per cent to 6 per cent hydrogen peroxide and the supply of these products is restricted to registered dental professionals only.

Many of the currently available products will not meet these new regulations.

SDI's Pola Day 3 per cent and 6 per cent hydrogen peroxide, and Pola Night 10 per cent and 16 per cent carbamide peroxide comply with the new regulations and will be available from 31 October 2012.

Medical device range

SDI has successfully gained approval for the range of Pola products which contain greater than 6 per cent hydrogen peroxide as medical devices under a revised product classification.

The packaging will comply with Medical Device Directive requirements based on modified 'Indications of Use' as follows:

- Lightly etching away surface staining on vital teeth
- Lightly etching away surface staining on non-vital teeth
- Assisting in the brightening of discoloured teeth
- Removal of surface stains on teeth discoloured by: medications, such as tetracycline, minocycline; fluorosis; food-related stains; and age-dependent changes.

These products are: Pola Day 7.5 per cent and 9 per cent hydrogen peroxide, Pola Night 22 per cent hydrogen peroxide, Pola Day CP 35 per cent hydrogen peroxide, Pola Office 35 per cent hydrogen peroxide and Pola Office Plus 37.5 per cent hydrogen peroxide.

These higher percentages will enable dental practices to continue to offer very fast treatments.

For more information, please visit www.sdi.com.au or www.polawhite.com.au

Product news

CS 8100 – for a better panoramic experience

For an Orthopantomogram (OPG) unit that's ideal for everyday use, consider the new CS 8100 digital panoramic system. It blends advanced technologies into a compact design, and provides everything you need to capture sharp, detailed images in seconds.

Among the key benefits is the tremendous power the system provides. Users will also appreciate the CS 8100's intuitive interface, and the imaging software that makes exams quick and simple.

It can also be connected to the practice network via an ethernet cable. Since most services can be performed remotely, this option can dramatically reduce service costs and call-out fees.

For more information, contact Carestream Dental on 0800 169 9692 or visit www.carestreamdental.co.uk

"So versatile and very easy to use"

Dr Alon Preiskel is a registered specialist in Prosthodontics, based in London's Wimpole Street, and course co-ordinator for the CPD implant programmes at the UCL Eastman Dental Institute. Dr Preiskel uses NobelReplace Tapered Groovy implants from Nobel Biocare and has recently begun to use NobelReplace Conical Connection.

"I've been using NobelReplace for the last six or seven years," he said. "It's so versatile and very easy to use for simple cases and for ensuring good primary stability. It is also great for using in immediate placement and immediate loading. You can save surgical time by using it in compromised situations in conjunction with procedures such as bone grafting. The prosthetic side of it is pretty straightforward too and we've had excellent results."

For more information on Nobel Biocare, call 0208 756 3300, or visit www.nobelbiocare.com

'Clean water in – clean water out'

Use Alkazyme-W for the routine decontamination of all integral chair-side water dispensing equipment. It's simple to use, a 15-minute weekly routine service clean with Alkazyme-W is all that is required to ensure the dental unit water supply unit remains free of bacterial bio-film, thus ensuring 'clean water in – clean water out'.

A unique combined protease enzyme-based detergent/disinfectant system rapidly removes bacterial bio-film, leaving internal surface areas thoroughly disinfected.

Available in a 500gm tub with dosing spoon Alkazyme-W allows for up to 100 service applications, making it highly economical.It is also non-toxic and fully biodegradable.

Ask your local dealer representative for Alkazyme-W. Visit www.alkapharm.co.uk

Bright shining dental Instruments 'in minutes'

Alkazyme enzymatic – for manual and/or ultrasonic cleaning-pre-disinfection of all reusable, immersible dental instruments prior to final sterilisation.

It has a rapid cleaning action. When used in conjunction with a standard ultrasonic cleaner, a maximum five-minute immersion time is all that is required to render soiled instruments clean.

Alkazyme continually disinfects the contaminated 'wash water' as created through the cleaning action, providing residual disinfection. It is also economical, as just five grams of Alkazyme diluted with ordinary tap water produces one litre of ready-use enzymatic solution.

Available from your usual dental sundry supplier in tubs of 750gm loose powder with dosing spoon. Also available in easy dose sachet form, in tubs containing 100 water soluble sachets.

For product information and a safety data sheet, visit www.alkazyme.com

New referral service for CBCT scans in Dumfries

Dentists near Dumfries in Scotland can now use a local referral service for Cone Beam Computer Topography (CBCT) scans, rather than sending patients on costly and time-consuming trips to Glasgow or Edinburgh.

Great King St Dental is offering use of its new Vatech PaX-Flex3D scanner to all local practitioners, along with a full service agreement to reassure them that it is not attempting to retain patients. The practice is also promising high standards of patient care and strict confidentiality procedures.

The scanner provides ultra high-definition panoramic images, letting dentists identify caries and check bone and pulp volumes prior to major procedures.

More information is available from Great King St Dental on 01387 266 456

New hand disinfectant gel from Kemdent

PracticeSafe Hand Disinfectant Gel is the new rapid action high-level hand disinfectant from Kemdent. It allows hygienic hand disinfection in seconds with no sticky residue. PracticeSafe Hand Disinfectant Gel preserves the epidermis of the skin. It is effective against: MRSA, E-Coli, H1N1 Influenza A Virus, Pseudomonas aeruginosa, Enterococcus hirae, Staphylococcus Aureus, Clostridium Difficile vegetable cell formation (growing cells) of Gram-positive organisms, Aspergillus niger and Candida albicans.

PracticeSafe Hand Disinfectant Gel used with the PracticeSafe Hand Disinfectant Gel Dispenser provides a correct dosage every time. The pouches can be replaced without coming into contact with any airborne micro-organisms.

Buy two packs of 4x650ml PracticeSafe Hand Disinfectant Gel and get a 'No touch' PracticeSafe Hand Disinfectant Gel Dispenser for only £50 in December.

For more information, visit www.kemdent.co.uk

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Outstanding caries diagnostics using fluorescence technology • Top quality intraoral images • Brilliant macro images (120-x magnification) • Records of video clips • Digital evaluation and data transmission

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DÜRR DENTAL

10 day 'try before you buy'

NSK has an excellent range of oral care products, from its powerful range of ultrasonic scalers, including the Varios 970, 570, 370 and 170, to the compact air polishing system Prophy-Mate neo.

The Varios range benefits from the selection of more than 70 tips, with the stand-alone Varios 970 featuring two irrigation bottles and the new NSK iPiezo engine. The Varios 970 LUX features twin LED lights. The portable Varios 370 is easy use with any dental unit and the Varios 170 is available as a built-in unit, where all its functions can be controlled via NSK's MultiPad. NSK's Prophy-Mate neo is an air-driven tooth polishing system that makes cleaning and polishing procedures easier. NSK are so confident in the Varios 970 and Prophy-Mate neo they offer a no-obligation 10-day 'try before you buy'.

For more information, contact NSK on 0800 634 1909 or visit www.nsk-uk.com

Controlling contamination

The Robert Koch Institute has published a comprehensive guide to hygiene in dental medicine and given its consent for Dürr Dental to reproduce the guidelines. It covers every aspect of dentistry, from the preparation of materials to cleaning suction units and the packaging of sterile instruments, through to additional measures for patients who have lower immunity and the risks of CJD.

Dürr Dental offers its customers' hygiene plans to facilitate these processes. These are a simple tool to manage the tasks needed to keep the surgery clean; staff can see, at a glance, what needs to be done, how it should be done, when and by whom.

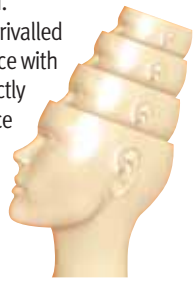
For a hygiene plan for your practice, write to Dürr Dental, 14 Linnell Way, Telford Way Industrial Estate, Kettering, Northants, NN16 8PS.

Four heads are better than one

One of the most versatile aspects of the VistaCam iX is the interchangeable head mechanism. Four heads are available, one providing high-resolution images of the oral environment; a macro head for close-ups of up to 100x zoom; a proof head for caries diagnosis with a colour-coded scale, and an LED curing light. Data transmission is fully digital through a USB port to a PC, or can function as a stand-alone version.

Dürr has set a benchmark in its design, winning the prestigious Red Dot Design Award in the process. The ergonomic head rotates a full 360° to ensure every part of the oral cavity is easily accessible, and a motion sensor switches the camera on and off to ensure efficient usage. Its smooth finish enables easy disinfection and sheathing for cross infection.

The VistaCam iX offers unrivalled functionality in a single device with multiple applications, perfectly complementing daily practice with an indispensable tool.



For more information, call 01536 526740.

Bien-Air Dental

Free iPad 3 WiFi (16GB) with every purchase of the iChiropro complete with CA20:1 L Contra-angle.

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Made for iPad

The only control system offering the pre-programmed clinical sequences of the main implant brands is now available with a dedicated application for touchscreen tablets.
Discover the perfect working balance between your iPad* and exceptional electronics for controlling the MX-i LED micromotor. The most powerful motor on the market, with LED lighting guaranteeing a very long service life, is now also equipped with ceramic ball bearings that are lubricated for life.

The 20:1 L Micro-Series contra-angle and the new iChiropro system redefine ergonomics and ease of use.

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* Compatible with iPad and iPad 2

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Fax +44 (0)1293 520481 chiropro@bienair.com www.ichiropro.com

Polymerising the slim way

The new Coltolux LED curing light combines a slim curing probe with high output for fast curing in a cordless, lightweight pen-style design.

The ergonomic, elegant design, together with the slim curing probe is ideal for hard to reach posterior areas and enhances visibility of the restorative material during the light curing process.

The high-output LED enables a fast cure (matching the absorption spectrum of Camphorquinone Photoinitiators 450-490nm), while the dome-shaped lens concentrates light output onto the restorations.

Light output is 1200mW/cm² and different audible signals mark the start of polymerisation, 10 and 20 seconds. Battery life is 100 cycles at 20 seconds and charging time is approximately two-and-a-half hours.

A unique second attachment turns the Coltolux LED pen into a dental mirror with an integrated LED light which improves visibility for difficult to see areas and is fully autoclavable.

For more information, please visit www.Coltene.com/en or call Coltene on 0500 295454 ext 223/224.

SoloCem – performance that really stands out

SoloCem from Coltene is a new self-adhesive resin cement with antibacterial zinc oxide that ensures a reliable, tight restoration with a particularly low level of shrinkage.

The dual-curing cement achieves outstanding adhesion values that ensure long-lasting stability on the enamel and dentine without the need for a separate bonding step.

SoloCem saves time with the direct application from the automix syringe delivery system. It has a range of indications including the cementation of crowns and bridges, inlays and onlays.

For more information, visit www.solocem.info or call Coltene on 0500 295 454 ext 223/224.

Aquafresh welcome back Billy Boy campaign

A new advertising campaign for a leading brand of toothpaste will mark the return of a much-loved animated character.

Billy Boy, who first hit TV screens in the 1980s, is returning to UK television as part of Aquafresh's new sponsorship deal with ITV's new Saturday evening show Fool Britannia, which is presented by Dom Joly.

The sponsorship package will run for eight weeks and includes online and mobile activity.

The wider campaign will also see outdoor, digital, press and in-store activity, consumer sampling and a dental expert engagement programme.

Lesley Stonier of Aquafresh said: "This offers the perfect, prime-time platform to connect with our target audience."

iChiropro – Bien-Air's revolutionary motor

The iChiropro by Bien-Air is a revolutionary physiodispenser, controlled from an iPad. The intuitive, ergonomic application ensures significant time savings during operations. Available free from the Apple App Store, the iChiropro application opens up numerous avenues in terms of customisation options. New functions will be introduced to guarantee users a simple and ergonomic experience.

The multi-user iChiropro incorporates the sequences of the leading implant manufacturers with their predefined settings.

The application allows multiple users to customise and store their own sequences. Claim your FREE iPad 2 with every purchase of the iChiropro complete with CA20:1 L Contra-angle handpiece.

For more details or an in-surgery demonstration, phone 01293 550 200 or email ba-uk@bienair.com

25-year life expectancy

The new LED operating lights from Takara Belmont have a life expectancy of 40,000 hours, which translates to about 25 years for the average user.

It is also designed to reduce eye fatigue, is ideal for colour matching and has intensity control that can be adjusted to address the light conditions of individual treatment rooms.

The new Belmont 900 Series LED Operating Light also emits less heat and consumes less power, offering an estimated 80 per cent power saving over a traditional halogen bulb. Cross-infection matters have also been covered with a touchless sensor to turn the light on/off, as well as allowing the user to switch to a composite cure mode setting. As the 10 LED lights are encased in a one-piece cover, the unit is easily cleaned.

The Belmont 900 Series is available as either a unit, ceiling or track mounted option, with all units carrying a five-year warranty.

For more information, call 020 7515 0333.

Doesn't have to be a right-handed world

Patients won't need any assistance navigating their way into the new Compass Treatment Centre from Takara Belmont; with a delivery unit that can rotate behind the chair, it provides an easy and unobtrusive welcome.

Nurses will also benefit from this feature as it provides the ideal position for essential clean and prep work. The unique centrally mounted pivoting mechanism allows the Compass to convert easily from right to left-handed use in less than 90 seconds.

The chair is designed to be relaxing with an ergonomically designed lumbar support and double articulating headrest.

To find out more, call 020 7515 0333.

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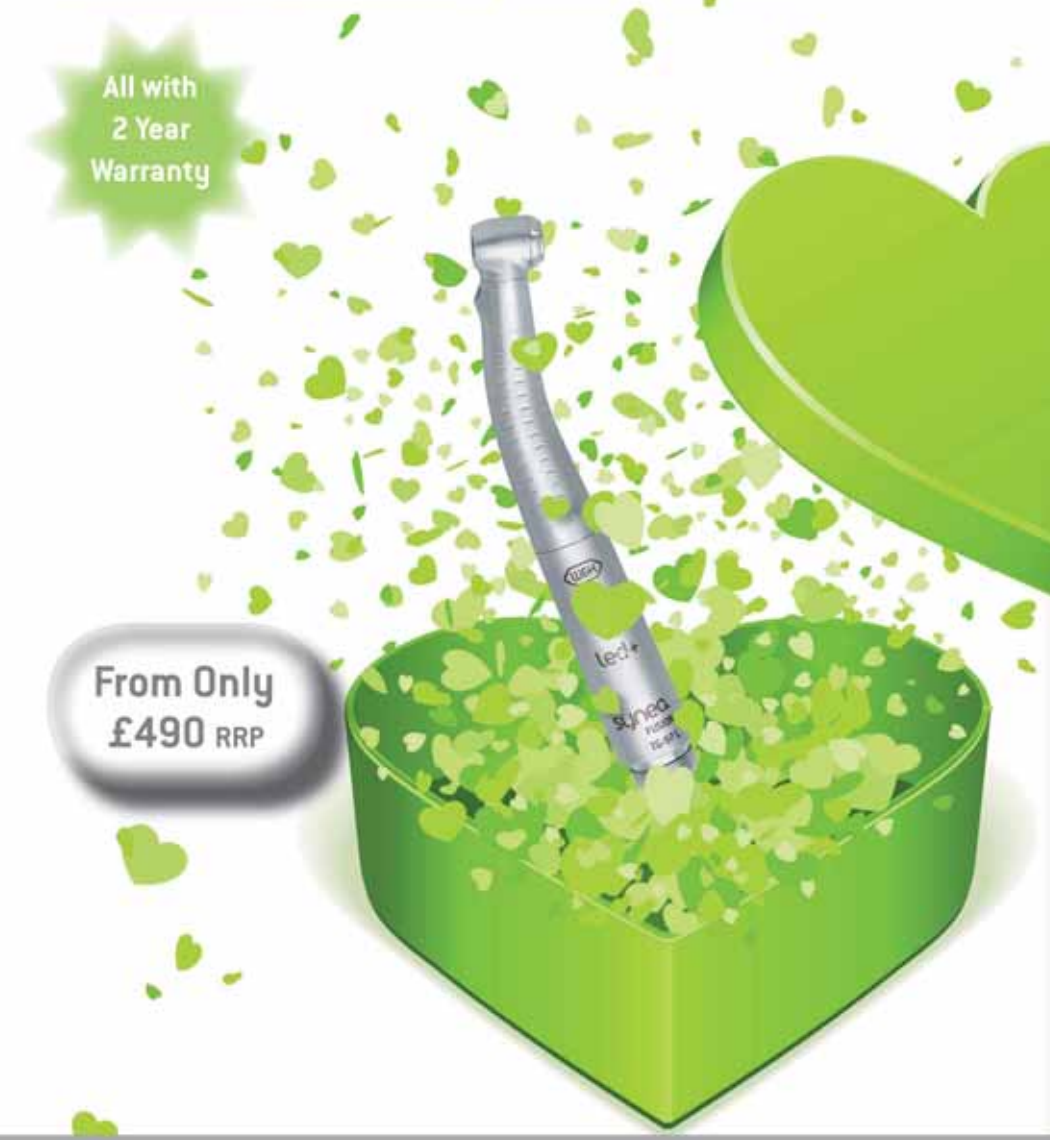

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